EFFECT OF PRODUCT REVIEW, INTERACTIVITY, SOCIAL INEQUALITY, AND CULTURE ON TRUST IN ONLINE RETAILERS: A COMPARISON BETWEEN CHINA AND THE U.S.

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ABSTRACT

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This study is the first study that compared the predicting strength of the effect of the micro factor (interactivity of product review use experiences) and macro factors (social inequality and culture) on consumers’ trust in online retailers. It examines the predictor of online trust by information asymmetry theory, reciprocity, in-group favoritism and out-group derogation, and social presence. Consumers of the two largest e-commerce sites in the United States and China, Amazon and Tmall, are compared. The results show the interactivity of product use experience is the strongest predictor of consumers’ trust in online retailers compared to social inequality and culture. The interactivity is positively related to consumers’ trust in famous brands, third-party retailers, and fulfilled third-party retailers of both Amazon and Tmall. In contrast, social inequality is negatively related to consumers’ trust in famous brands, third-party retailers, and fulfilled third-party retailers of both Amazon and Tmall. Individualism is positively related to trust in third-party retailers while collectivism is positively related to trust in third-party retailers fulfilled by Amazon or Tmall. Power distance exerts a positive impact on trust in famous brands only. Collectivism plays a more critical role in predicting trust in fulfilled online retailers in Chinese sample than in the U.S. sample.
The relationship of trust in online retailers and consumers’ actual online purchases is different across countries. Trust in online retailers is an important direct predictor of online purchase diversity and indirect predictor of the amount of money spent online in both the U.S. and China. And it is a direct predictor of online purchase frequency in the U.S., but an indirect predictor of purchase frequency in China. Trust in online retailers is positively related to the amount of money spent on Amazon/Tmall indirectly by affecting shopping frequency on Amazon/Tmall.
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER I. INTRODUCTION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Overview</td>
<td>1</td>
</tr>
<tr>
<td>Background of the Research</td>
<td>2</td>
</tr>
<tr>
<td>Research Problem Statement</td>
<td>6</td>
</tr>
<tr>
<td>Significance</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHAPTER II. LITERATURE REVIEW</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>12</td>
</tr>
<tr>
<td>Definition and Forms</td>
<td>12</td>
</tr>
<tr>
<td>Importance of Trust for Online Shopping</td>
<td>16</td>
</tr>
<tr>
<td>Antecedents of Online Trust</td>
<td>19</td>
</tr>
<tr>
<td>Online Product Reviews</td>
<td>22</td>
</tr>
<tr>
<td>Face-to-Face WOM and e-WOM</td>
<td>22</td>
</tr>
<tr>
<td>Product Reviews, Trust, and Sales</td>
<td>23</td>
</tr>
<tr>
<td>Hyperpersonal Communication</td>
<td>27</td>
</tr>
<tr>
<td>Communication Cues</td>
<td>28</td>
</tr>
<tr>
<td>Volume and Diversity</td>
<td>28</td>
</tr>
<tr>
<td>Presentation Order</td>
<td>29</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Employment inequality</td>
<td>68</td>
</tr>
<tr>
<td>Educational inequality</td>
<td>69</td>
</tr>
<tr>
<td>Health inequality</td>
<td>70</td>
</tr>
<tr>
<td>Social Inequality in China</td>
<td>71</td>
</tr>
<tr>
<td>Income inequality</td>
<td>71</td>
</tr>
<tr>
<td>Regional inequality</td>
<td>72</td>
</tr>
<tr>
<td>Educational and opportunity inequality</td>
<td>74</td>
</tr>
<tr>
<td>Race/ethnicity inequality</td>
<td>76</td>
</tr>
<tr>
<td>Culture</td>
<td>77</td>
</tr>
<tr>
<td>Culture and WOM</td>
<td>77</td>
</tr>
<tr>
<td>Individualism/Collectivism</td>
<td>78</td>
</tr>
<tr>
<td>Power Distance</td>
<td>85</td>
</tr>
<tr>
<td>E-commerce in the U.S. and China</td>
<td>87</td>
</tr>
<tr>
<td>Current State</td>
<td>87</td>
</tr>
<tr>
<td>Online Payment Methods</td>
<td>90</td>
</tr>
<tr>
<td>E-logistics</td>
<td>92</td>
</tr>
<tr>
<td>Amazon vs. Tmall</td>
<td>96</td>
</tr>
<tr>
<td>Current state</td>
<td>96</td>
</tr>
<tr>
<td>Product review system</td>
<td>98</td>
</tr>
<tr>
<td>Payment methods</td>
<td>104</td>
</tr>
</tbody>
</table>
Individuals’ Characteristics ............................................................................... 104

CHAPTER III. THEORY AND CONCEPTUAL FRAMEWORK ......................... 106

Theory ................................................................................................................ 106
Reciprocity ........................................................................................................... 106
In-Group Favoritism and Out-Group Derogation ............................................ 109
Information Asymmetry ..................................................................................... 112
Hyperpersonal Communication ......................................................................... 114
Social Presence .................................................................................................. 117
Social Influence ................................................................................................. 121

Conceptual Framework of the Study ................................................................. 122

Dependent Variables ......................................................................................... 122
Trust in online retailers ...................................................................................... 122
Actual online purchases ...................................................................................... 122

Independent Variables ..................................................................................... 123
Perceived interactivity ....................................................................................... 123
Social presence ................................................................................................. 123
Personalization .................................................................................................. 124
Playfulness .......................................................................................................... 124
Perceived social inequality ............................................................................... 124
Individualism/ collectivism ........................................................ 125

Power distance ........................................................................... 125

Research Model, Questions, and Hypotheses .................................................... 125

CHAPTER IV. METHOD ............................................................................................. 132

Overall Research Design.................................................................................... 132

Sampling ............................................................................................................ 133

Research Procedures .......................................................................................... 133

Measures ............................................................................................................ 136

Dependent Variables ......................................................................................... 136

Trust in online retailers ........................................................................... 136

Trust in famous brands ............................................................................. 136

Trust in third-party retailers ........................................................................ 136

Trust in fulfilled third-party retailers ........................................................... 137

Trust in online retailers ........................................................................... 137

Online shopping frequency on Amazon/Tmall .............................................. 138

Online shopping diversity on Amazon/Tmall ................................................. 138

Actual amount of money spent on Amazon/Tmall ......................................... 138

Independent Variables ............................................................................... 138

Social presence .......................................................................................... 138
CHAPTER V. RESULTS

Demographic Profile of Samples

U.S. Sample

Chinese Sample

Total Sample

Descriptive Statistics of Online Shopping Behaviors

Online Shopping Behaviors

Online Shopping Behaviors on Amazon and Tmall

Descriptive Statistics of Key Variables

Trust
Actual Online Purchases ................................................................. 161
Interactivity ....................................................................................... 161
Social Inequality and Culture .......................................................... 162
Assumption Test .................................................................................. 164
Linearity .............................................................................................. 164
Normality ............................................................................................. 166
Multicollinearity .................................................................................. 167
Reliability of the Scales ...................................................................... 168
Convergent Validity ............................................................................. 169
Hypotheses Test .................................................................................. 170
Predictors of Online Trust in Online Retailers ................................... 170
Individuals’ Characteristics and Trust .............................................. 174
Micro and Macro Factors Comparison ............................................. 176
Predictors of Perceived Interactivity ............................................... 177
Comparison of Interactivity Dimensions ....................................... 179
Trust and Actual Online Purchases in The U.S. Sample ................. 180
Individuals’ Characteristics and Actual Online Purchases in the U.S. .. 182
Trust and Actual Online Purchases in Chinese Sample.................... 184
Individual Characteristics and Actual Purchases in Chinese Sample.... 188
Results Summary ........................................................................................................... 190

CHAPTER VI. DISCUSSION, CONCLUSION, AND LIMITATION ......................... 194

Theoretical and Practical Contributions ................................................................. 194

Online Shopping Behaviors between the U.S. and Chinese Consumers .......... 196

Online Shopping Behaviors of Consumers on Amazon and Tmall ............... 198

Trust and Risks ......................................................................................................... 201

Interactivity and Trust ............................................................................................ 203

Predictors of Perceived Interactivity ................................................................. 206

Social Inequality and Trust .................................................................................. 208

Culture and Trust .................................................................................................... 210

Individual Characteristics and Online Shopping ............................................. 213

Suggestions ............................................................................................................. 214

Limitations and Future Research ......................................................................... 218

REFERENCES ......................................................................................................... 222

APPENDIX A. APPROVAL LETTER OF HUMAN SUBJECT REVIEW BOARD . 256

APPENDIX B. ENGLISH VERSION OF INFORMED CONSENT LETTER ........ 258

APPENDIX C. CHINESE VERSION OF INFORMED CONSENT LETTER ......... 260

APPENDIX D. ENGLISH VERSION OF SURVEY ............................................. 262
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Differences between Face-to-Face WOM and Online Product Reviews</td>
<td>35</td>
</tr>
<tr>
<td>2.2 Differences between Amazon and Tmall Product Reviews</td>
<td>35</td>
</tr>
<tr>
<td>5.1 Demographic Profiles of U.S., Chinese, and Total Samples</td>
<td>143</td>
</tr>
<tr>
<td>5.2 Race and Income of U.S. and Chinese Samples</td>
<td>144</td>
</tr>
<tr>
<td>5.3 Comparison of the U.S. Sample and U.S. Population</td>
<td>148</td>
</tr>
<tr>
<td>5.4 Comparison of Chinese General Internet Users sample and Chinese General Internet Users</td>
<td>149</td>
</tr>
<tr>
<td>5.5 Online Shopping Behaviors of U.S. and Chinese Respondents</td>
<td>151</td>
</tr>
<tr>
<td>5.6 Overall Perceived Online Shopping Risks</td>
<td>152</td>
</tr>
<tr>
<td>5.7 Overall Perceived Online Shopping Benefits</td>
<td>153</td>
</tr>
<tr>
<td>5.8 Online Shopping Behaviors by Devices</td>
<td>154</td>
</tr>
<tr>
<td>5.9 Most Important Factor for Online Purchase Decisions</td>
<td>156</td>
</tr>
<tr>
<td>5.10 Product Types Purchased on Amazon and Tmall</td>
<td>157</td>
</tr>
<tr>
<td>5.11 Online Shopping Behaviors on Amazon and Tmall</td>
<td>159</td>
</tr>
<tr>
<td>5.12 Independent T-Test of Key Variables</td>
<td>160</td>
</tr>
<tr>
<td>5.13 Independent T-Test of Culture between White and Minorities</td>
<td>163</td>
</tr>
<tr>
<td>5.14 Regression of Predictors of Social Inequality</td>
<td>164</td>
</tr>
</tbody>
</table>
5.15 Linearity of Bivariate Pairs in Total Sample ......................................................... 165
5.16 Multicollinearity Test of Three Trust Models in Total Sample ......................... 168
5.17 Reliability Test in Total Sample ............................................................................ 168
5.18 Convergent Validity by Factor Analysis and T-Test in the Total Sample .......... 169
5.19 Predictor1 of Trust in Famous Brands on Amazon or Tmall............................... 171
5.20 Predictors of Trust in Third-Party e-Retailers on Amazon or Tmall..................... 171
5.21 Predictors of Trust in Fulfilled e-Retailers on Amazon or Tmall.......................... 171
5.22 Effect of Race and Power Distance on Trust in Famous Brands on Amazon ....... 174
5.23 Predictors of Perceived Interactivity of Product Review Use Experiences ......... 178
5.24 Perceived Interactivity by Different Online Shopping Proficiency ...................... 179
5.25 Comparison the Effect of Interactivity Dimensions on Online Trust in e-

Retailers ............................................................................................................. 180

5.26 Relationship of Trust in e-Retailers and Actual Purchases in the U.S.

Sample................................................................................................................ 181

5.27 Individuals’ Characteristics and Actual Online Purchases in the U.S.

Sample................................................................................................................ 183

5.28 Relationship of Trust in e-Retailers and Actual Purchases in Chinese

Sample................................................................................................................ 185

5.29 Individuals’ Characteristics and Actual Online Purchases in Chinese
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Interaction of online consumers</td>
<td>39</td>
</tr>
<tr>
<td>2.2 A photo product review on Tmall</td>
<td>47</td>
</tr>
<tr>
<td>2.3 A video review of selfie stick on Amazon</td>
<td>48</td>
</tr>
<tr>
<td>2.4 High personalized product review on Amazon</td>
<td>53</td>
</tr>
<tr>
<td>2.5 Low personalized product review on Amazon</td>
<td>53</td>
</tr>
<tr>
<td>2.6 Interesting reviews of Gummy Bears on Amazon</td>
<td>58</td>
</tr>
<tr>
<td>2.7 Interesting product reviews on Tmall</td>
<td>58</td>
</tr>
<tr>
<td>2.8 The acceptance rate of College Entrance Examination in different cities in China</td>
<td>76</td>
</tr>
<tr>
<td>2.9 Product reviews on Tmall</td>
<td>100</td>
</tr>
<tr>
<td>2.10 Star ratings of a retailer on Tmall</td>
<td>100</td>
</tr>
<tr>
<td>2.11 Product sales and review amount on Tmall</td>
<td>100</td>
</tr>
<tr>
<td>2.12 Post-purchase reviews and retailer’s reply on Tmall</td>
<td>100</td>
</tr>
<tr>
<td>2.13 Product reviews on Amazon</td>
<td>102</td>
</tr>
<tr>
<td>2.14 Star ratings of a product on Amazon</td>
<td>102</td>
</tr>
<tr>
<td>2.15 Recent reviews and image reviews on Amazon</td>
<td>102</td>
</tr>
<tr>
<td>2.16 A reviewer’s profile and review history on Amazon</td>
<td>103</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>2.17 Interaction between reviewers and customers on Amazon</td>
<td>103</td>
</tr>
<tr>
<td>2.18 Questions and answers on Amazon</td>
<td>103</td>
</tr>
<tr>
<td>3.1 Top 500 Reviewer on Amazon</td>
<td>122</td>
</tr>
<tr>
<td>3.2 Total amount of reviews and star ratings on Amazon</td>
<td>122</td>
</tr>
<tr>
<td>3.3 Research model</td>
<td>131</td>
</tr>
<tr>
<td>5.1 Histogram for trust in famous brand</td>
<td>166</td>
</tr>
<tr>
<td>5.2 P-P plot for trust in famous brand</td>
<td>166</td>
</tr>
<tr>
<td>5.3 Histogram for trust in third-party retailers</td>
<td>166</td>
</tr>
<tr>
<td>5.4 P-P plot for trust in third-party retailers</td>
<td>166</td>
</tr>
<tr>
<td>5.5 Histogram for trust in fulfilled third</td>
<td>167</td>
</tr>
<tr>
<td>5.6 P-P plot for trust in fulfilled third-party retailers</td>
<td>167</td>
</tr>
<tr>
<td>5.7 Revised Model for trust and actual purchases in the U.S sample</td>
<td>184</td>
</tr>
<tr>
<td>5.8 Path Analysis of the Relationship of Trust and Actual Online Purchases in China</td>
<td>186</td>
</tr>
<tr>
<td>5.9 A revised model for trust and actual purchases in Chinese Sample</td>
<td>188</td>
</tr>
</tbody>
</table>
CHAPTER I. INTRODUCTION

Study Overview

The boom in e-commerce in China and the U.S. caught the eyes of global investors and researchers. The U.S. e-commerce giant Amazon and eBay entered Chinese market early, but they all have failed in the Chinese market. Amazon only accounted for 1.3% of retail market share while eBay accounted for an even smaller market share in China (iResearch, 2015). Amazon intended to turn the table in China’s market. It provided a direct shopping channel for Chinese shoppers through which they could buy products directly on Amazon’s website in the U.S. during 2014 Thanksgiving shopping season. Products would be shipped from the U.S. to China. Chinese e-commerce companies also have plans to enter the U.S. market. Alibaba opened its international online shopping site Aliexpress.com to sell China’s products to consumers all over the world. Hence, it is important to examine similarities and differences of e-commerce in both countries and offer some guidelines for online retailers who are interested in both markets. This dissertation will address the growing online market in the two countries by comparing the effect of the micro factor (interactivity of product review use experiences) and macro factors (social inequality and culture) on trust in online retailers.
**Background of the Research**

China and the U.S. are the two largest e-commerce markets in the world, accounting for more than 55% of the worldwide online retail sales. Retail sales worldwide including both offline and online purchases was $22.49 trillion in 2014 and e-commerce accounted for 5.9% of the total retail sales ($1.32 trillion). It is estimated that e-commerce’s market share in the total retail sales will reach 8.80% in 2018 (eMarketer, 2014). According to Internet Retailer (2015a), China had the largest online retail sales in 2015($672 billion), which was almost 33 times of the tenth largest market, Australia ($19 billion). The U.S. had the second largest online retail sales ($349 billion) after China and its online retail sale grew 14%. China’s e-commerce grew fastest (42%) from 2014 to 2015 worldwide and its growth rate was three times of that in the U.S. (14%). China’s online retails sales will reach to $1 trillion by 2018, accounting for 40% of global e-commerce sales. Mobile commerce and social commerce also grow faster in China than the U.S. Hence, the U.S. will remain the second largest e-commerce market in the world (eMarketer, 2014).

Online sales are more important for Chinese retailers than the U.S. retailers. There were 63% of the U.S. population (191 million out of 319 million people) who shopped online, but the online transaction only accounted for 6.5% of the total retail sales. However, 27.5% of China’s population (385 million out of 1.4 billion people) purchased online while its online purchases accounted for more than 10% of total retail sales (eMarketer, 2014).
Compared to U.S. online consumers, there were more China’s online shoppers who shopped online at least monthly (96% vs. 72%), would like to use digital currency (58% vs. 28%), preferred getting offers by smart phones (79% vs. 58%), were willing to pay for the same-day delivery (62% vs. 61%), and researched brands on social media (41% vs. 22%) (PricewaterhouseCoopers, 2015). The skyrocket of China’s e-commerce is caused by consumers’ lower economic status, although their trust in online retailers may be lower in China than the U.S. Many online products are cheaper than products in brick and mortar stores in China due to the high rental cost. Another reason is the high rental cost of brick and mortars stores in China. The rental cost of brick and mortars stores accounted for 30% of retailers’ total cost. One officer of Chinese Ministry of Commerce said that the rental cost increased by 20% per year (XinHua Net, 2016). The result of the high rental cost is the high product price. On the other hand, e-commerce decreases transaction costs by streaming the supply chain management and distribution. When consumers place an order online, a product is shipped directly from warehouse or wholesaler to customers. Thus, Chinese consumers can purchase cheap products all over the country even the world.

Trust is an important universal determinant of consumers’ online purchase intention since consumers perceive more risks when they shop in a virtual online environment than offline stores (Kimery & McCord, 2002). China’s consumers are experiencing a trust crisis. Chinese online shoppers encounter more risks than their U.S. counterparts because of the
prevalence of counterfeits and the common discrepancy between descriptions and actual products. Such fraudulent business practices reduce consumers’ trust in online retailers. Also, it is difficult for Chinese consumers to return online products, which increases their risks and lowers their trust in online merchants.

Interactivity is a key element that affects consumers’ attitude and behavior such as attitude toward websites (Johnson & Grayson, 2005), perceived website’s quality and effectiveness (Teo, Oh, Liu, & Wei, 2003), trust (e.g., Lee, 2005; Merrilees & Fry, 2003), and intention to buy (Jiang & Benbast, 2007). Interactivity affects people’s evaluation of the credibility of the e-word-of-mouth messages (Levy & Gvili, 2015).

Product review features are different in China and the U.S. Most product reviews on U.S. e-commerce giant such as Amazon are text-based with long texts while many reviews on China e-commerce sites such as Tmall include pictures, which are a richer medium based on Media Richness Theory. Customers’ experiences may be different when they read product reviews, so are antecedents of their trust. Besides, studies that focus on product reviews only investigate the characteristics of product reviews’ text content such as review valence or review extremity (Mudambi & Schuff, 2010; Park & Lee, 2009). However, customers’ online shopping or product review use is a complex combination of various experiences. The perceive interactivity may have a strong impact on consumers’ online shopping experiences. Customers may perceive different levels of interactivity given the same product review
content. Hence, it is necessary to examine the effect of the interactivity of product review use experiences on trust in online retailers.

The decline in morality in China today becomes a national concern. For example, “Peng Ci” is a currently widespread fraud in China. It refers to the phenomenon that people deliberately crash into others’ cars and then demand compensation from car owners. Some people even live off Peng Ci. One famous incident was the “Peng Yun case” in 2006. Mr. Peng, a self-described Good Samaritan, who helped an old woman falling to the ground. As a result, Mr. Peng was charged for about US$7000 as the accident compensation (Bloombergview, 2012).

The social environment in the U.S. may also affect people’s social trust (trust in other people) that in turn may affect their trust in online retailers. In general, credibility and honesty are emphasized in the U.S. business with good consumer protection practices. Returning online products is easy and convenient for consumers, which reduces their risks and enhances their trust. Despite such favorable business environment, there are other social issues that can lower consumers’ trust. For example, racial discrimination is a troublesome social issue in the U.S, which may affect consumers’ social trust. The federal data reported that Blacks (aged 15 to 19) were killed by the police 30 times more (31.17 per million) than Whites in the same age range (1.47 per million) (ProPublica, 2014). Ferguson shooting in 2014 was not a rare case in the U.S. when a White police officer shot a Black person. Black
people became so enraged that they set on fire and looted because the grand jury decided not to indict the White police officer (New York Times, 2015). The racial discrimination and public safety issue may exert pressure on people.

However, there are not many studies that have examined how such social factors affect consumers’ trust in online shopping. It is vital and interesting to examine such social factors as different and similar antecedents of trust in online retailers, to further understand the differences in consumers’ attitudes and behaviors in China and the U.S. The social environment may affect people’s social trust, which may, in turn, influence their trust in online retailers. Two social factors are investigated in this study including social inequality and culture.

**Research Problem Statement**

This study will identify three key factors that may influence trust in online retailers for online shoppers: 1) perceived interactivity of product review use, 2) social inequality, 3) culture. This study will cover consumers’ interactivity of product review use experiences, and social-economic factors including consumer’s perceived social inequality and culture as predictors of online retailer trust. The researcher will compare the relative importance of the effect of macro factors such as culture and social inequality and micro-factors such as interactivity of product review use on the trust in online retailers. Individual characteristics including online shopping proficiency and income will be included in the study as control
variables because they have been found to be related to trust (Gefen, 2000; Metzger, 2006; Teo & Liu, 2007).

**Significance**

This study focuses on predictors of trust in online retailers. It examines antecedents of trust from both a macro perspective (social inequality and cultural) and a micro perspective (the interactivity of online product review use experiences on a retailer’s website). Previous studies only focus on either micro factors (e.g., Gefen et al., 2003; Liao, Palvia, & Lin, 2006; McCloskey, 2006) or macro factors (e.g., Gefen, & Heart, 2006; Vance, Elie-Dit-Cosaque, & Straub, 2008). This study will integrate both factors and compare the predicting power of social cultural factors with the interactivity of online product review use on trust in online retailers. It is necessary and important to examine both micro and macro as antecedents of trust in different contexts. If this study only examines the effect of social inequality on trust, it is not so helpful for retailers since they cannot control those macro factors. On the other hand, if this study only examines the effect of the interactivity of product reviews on trust, it ignores the deep social influence on trust and may not explain why people in different countries have a different level of trust in online retailers. If predicting effects of both macro and micro factors on trust toward online retailers are significant, it will provide theoretical advancement on the theory of consumer trust by adding social inequality in the model of trust for researchers. Practically, the result can be expanded to e-commerce in other areas or
countries with different socio-economic conditions. Hence, it is interesting and useful to conduct this study incorporating both macro and micro factors as antecedents of trust. This study will not just assume social inequality and culture of each country, but empirically measure the perceived social inequality and culture of the U.S. and Chinese consumers. The actual perceived social inequality and cultural values of customers can reveal the true difference between the two countries.

One important reason to conduct this study is the lack of studies on the impact of the interactivity of product review use experiences on trust in online retailers, even though a lot of studies have examined antecedents of trust. Previous studies mainly examine the antecedents of trust from five perspectives: relationship between offline trust and online trust (e.g., Corritore et al., 2003), characteristics of individual customers (e.g., Gefen, 2000; Teo & Liu, 2007), design of websites (e.g., Gefen et al., 2003; McCloskey, 2006), information quality (e.g., Liao et al., 2006; Sillence, Briggs, Fishwick, & Harris, 2004) and companies/organizations (e.g., Chen, 2006; McKnight, Choudhoury, & Kacmar, 2002). Studies that examine the relationship of interactivity and trust focus on the impact of perceived interactivity of the website on trust in online retailers or trust in the website (e.g., Wu, Hu, & Wu, 2010; Wang, Meng & Wang, 2013). As trust is so important in e-commerce and online product reviews play a key role in building consumers’ trust in online retailers (Jøsang, Ismail, & Boyd, 2007), this study will focus on product review use specifically to
enhance the explanation of antecedents of trust in online shopping context and compare the differences among trust in famous brands, third-party retailers, and fulfillment retailers.

The level of perceived interactivity is a key element that affects consumers’ attitude toward the website (Johnson & Grayson, 2005), perceived website’s quality and effectiveness (Teo, et al., 2003), and intention to buy (Jiang & Benbast, 2007), but previous studies overlook product reviews. Yun, Park, and Ha (2008) have found significant differences in the use of interactive features on the U.S. and Korean shopping sites due to the cultural differences such as the power distance. The effect of product reviews on consumers’ trust have been confirmed in previous studies (e.g., Li, Wu, & Xu, 2007). The argument quality, the perceived similarity of the reviews, the positivity or negativity of reviews, and the numerical ratings affect trust (e.g., Racherla, Mandviwalla, & Connolly, 2012; Sparks & Browning, 2011). However, the level of perceived interactivity of product reviews, as one of the most important differences between offline shopping experiences and online shopping experiences, has not been examined.

The social-economic environment changes rapidly. Previous comparative studies focus on the impact of cultural factors on trust such as individualism and collectivism proposed by Hofstede (1980) (e.g., Gibbs & Kraemer, 2004; Jarvenpaa, Tractinsky, & Saarinen, 1999). They ignore socio-economic factors. Consumers who live in a society would be affected by the environment to some degree, especially their trust. Companies’ business practice is also
influenced by the legal and social environment. Social inequality is one key difference between the U.S. and China, but studies about their impacts on trust in online retailers are in its infancy. Also, results in some previous studies contradict the actual e-commerce situations in China. For example, Tong (2010) reported Chinese consumers perceived more risks and less ease of use of online shopping than the U.S. consumers. They had less intention to buy online than the U.S. consumers. However, the growth of e-commerce and the largest online sales in China challenges previous findings. Thus, it is necessary to reexamine the relationship between culture and trust. Thus, it is meaningful to examine the influence of social-economic factors on consumers’ trust in online retailers.

Culture changes constantly. For example, individualism is becoming popular in China today (Liu, 2013). More and more people pursue material wealth in China. Due to the limited children policy and the emphasis on education, two parents bring up only one child in a family. China’s young people are growing up in an environment without economic scarcity and wars. One scholar argues there are increasingly individualists who live for their own interests by their intelligence (Liu, 2013). Additionally, results of culture and trust in previous research is mixed. Culture has been found play a role in trust (Van Lange, Rockenbach, & Yamagishi, 2017). The U.S. has been considered as an individualism country whereas China has been considered as a collectivism country. However, culture is changing with time and social-economic conditions. Some scholars suggest that collectivists such as Chinese
consumers are less trusting and more risk avoidance than individualists such as U.S. consumers (Van Lange, et al., 2017). Other scholars argue family members’ helps share and reduce Chinese consumers’ risks. In the U.S., individuals take risks by themselves (Weber & Hsee, 1998). Therefore, it should be reinvestigated that the actual cultural value and the relationship between culture and consumers’ trust in China and the U.S. in the period of high development of e-commerce.

Another contribution of this study is the relationship between trust and actual online purchases. Previous studies mainly examine the relationship between trust and online purchase intentions (e.g., Chang, & Chen, 2008; Yoon, 2002). However, intentions would not necessarily lead to actual behaviors (Eckes & Six, 1994). Consumers may not make an actual purchase due to many issues before or during the purchase process such as inconvenience of payment method or terrible website design, even though they have purchase intentions. Actual online purchases should be examined as it is the ultimate goal of both marketers and online retailers.
CHAPTER II. LITERATURE REVIEW

Trust

Definition and Forms

Trust is an important factor for a variety of outcomes such as cooperation, information sharing, or transaction, etc. It is a complex concept with no consistent definition. The most cited definition of trust derives from Mayer, Davis, and Schoorman (1995). They defined trust as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (Mayer et al., 1995, p.712).

This comprehensive definition of trust is applicable in different context. Mayer et al. (1995) differentiated trust from confidence, predictability, and cooperation. Trust means accepting and being willing to take risks, but confidence, predictability, and cooperation do not necessitate risks (Mayer et al., 1995). A consumer who is confident in retailers’ behaviors or predicts they would provide good products would not necessarily accept transaction risks. However, a consumer who trusts a retailer would be willing to take risks. Thus, the willingness to take risks and be vulnerable plays a key role in the definition of trust.

Cooperation is one result of trust. High trust may lead to cooperation while distrust may lead to noncooperation.
Disposition to trust considers trust from a psychological perspective. It refers to the extent of people’s tendency to trust others. The target of disposition to trust is general others. People’s disposition to trust is considered as human’s personality trait and a stable characteristic. Some people have a greater tendency to trust anybody and anything while other people do not. People’s childhood experiences, the perception of humanity, socialization, and culture affect their disposition to trust (e.g., Fukuyama, 1995; Rotter, 1971).

Institutional trust derives from sociologists, who believe trust should be considered in the specific situation and environment. Institutional trust occurs when one perceives a favorable situation that will help perform one’s actions (Lewis & Weigert, 1985; Luhmann, 1979). In the e-commerce context, favorable situations refer to the regulatory, policy, legal, business, and technical environment (McKnight & Chervany, 2001). Examples of institutional trust are consumers’ perception of the legal or policy environment of e-commerce in the U.S. and China. Some scholars propose the concept “system trust” in a digital context. System trust refers to a party’s willingness to rely on the information system (Leimeister, Ebner, & Krcmar, 2004; Ratnasingam, 2005). People usually treat information system as social actors with human characteristics, which can help build trust relationship (Wang & Benbasat, 2005). Examples of system trust in this study are consumers’ perception of the web security of the information system offered by Amazon and Tmall.
Interpersonal trust refers to a party’s willingness to rely on the other party and believe negative outcomes will rarely happen. The target of interpersonal trust is specific individuals or entities. This study focuses on interpersonal trust in which consumers are trustors and retailers are trustees. Specifically, it examines consumers’ trust in three types of online retailers including trust in famous brands, third-party retailers, and third-party retailers fulfilled by Amazon or Tmall.

Disposition to trust, institutional trust, and interpersonal trust are correlated. Scholars suggest disposition to trust is the foundation of institutional trust and interpersonal trust (Tan & Sutherland, 2004; McKnight et al, 2002). Previous studies have shown disposition to trust is positively related to trust in online retailers (e.g., Gefen, 2000; Teo & Liu, 2007).

Scholars suggest two types of trust including cognitive trust and emotional trust (e.g., Mayer et al., 1995; McKnight, et al., 2002). Cognitive trust is the rational evaluation of another’s competency to perform certain behaviors, which is depending on trustees’ past behaviors, dependability, predictability, and fairness. Cognitive trust consists of three dimensions including competence, integrity, and benevolence (Mayer et al., 1995). Competence refers to trustee’s expertise to meet trustors’ demands. For example, consumers may consider if retailers have the technology or resources to provide high-quality products. Benevolence refers to the extent to which trustees’ motivation is benign and not harmful. Consumers would consider if retailers place their profit at the top priority at the cost of
consumers’ interests. Integrity refers to the extent to which trustees are honest. Consumers would consider if the actual product consumers receive is congruent with the description.

Emotional trust refers to the extent to which trustees (e.g., online retailers) care and concern trustors’ (e.g., consumers) welfare. The essence of emotional trust is the assumption that trust is based on emotions. It is related to the relationship’s strength and security (Johnson & Grayson, 2005). For example, people are more likely to trust a product recommended by families or friends no matter the families or friends have the expertise of the product or not.

Trust is not static, but dynamic. Consumers develop trust by three stages when they interact with retailers (Briggs, Burford, De Angeli, & Lynch, 2002). They evaluate retailers initially before moving forward to further assessment. Then they assess the information about retailers. The initial transactions and experiences with retailers affect consumers’ future relationships with retailers. Finally, if consumers are satisfied with past transactions, they may build a long-term trust with retailers. Doney, Cannon, and Mullen (1998) proposed people build trust by five different processes including prediction, transference, calculation, intentionality, and capability process. The prediction process refers to building trust depending on previous experiences such as shopping experiences (Lewicki & Bunker, 1995). Under the transference process, customers build trust based on word-of-mouth (WOM) of in-group members such as families or friends. Under the calculative process, people assess gain and loss of trusting others or cooperating with others. Under intentionality process, they form
trust depending on if the trustees’ motive is benevolent and harmless to them. Under the capability process, they form trust relying on trustees’ competence or expertise.

**Importance of Trust for Online Shopping**

Trust is an important universal predictor of online shopping intentions (e.g., Cook, Campbell, & Day, 1979; Gefen, 2000; 2002; McKnight et al., 2002) and loyalty to online retailers (Flavián, & Guinaliu, 2006). Pavlou and Chai (2002) have found consumers’ trust is positively related to individuals’ attitudes and perceived behavioral control toward online shopping, which in turn are positively related to online shopping intentions in both Chinese and the U.S. samples.

Trust plays a key role in online shopping due to the lack of regulation and high risks in the virtual shopping environment. In the e-commerce context, online shoppers face more risks than offline shoppers due to the virtual shopping context. When consumers shop online, they cannot see, touch, or feel products or communicate with sellers face-to-face, so they perceive more risks of product quality. Online buyers encounter six types of risks including financial, product performance, psychological, time/convenience, and privacy risks (e.g., Mitchell, 1992; Schiffman & Kanuk, 2000). Financial risks exist when consumers lose their money. For instance, sellers do not send a product. Consumers face product performance risks when a product does not perform as they expect (Horton, 1976). Psychological risks refer to consumers’ perception of frustration, disappointment, or dissatisfaction when
consumers use retailers’ websites or apps. Time/convenience risks refer to the time loss or inconvenience due to searching product information, using the website, or delayed orders. Privacy risks refer to customers’ information disclosure such as their credit card information, which is one of online shoppers’ major concerns (Miyazaki & Fernandez, 2001).

Consumers face transaction risks and system risks when they shop online. Transaction risks refer to consumers’ perceived risk and uncertainty due to the fact that they cannot see the actual products, sellers, and stores, so they cannot guarantee the quality of the product. If consumers trust the online vendor, they will feel less uncertainty and fewer risks about the product quality or retailers’ possible adverse behaviors, which refers to the interpersonal trust. System risks refer to consumers’ concern about the technological errors or security in online shopping. If consumers trust online retailers, they will believe the retailers shopping system is stable and retailers will not divulge their personal information, which refers to the system trust.

When trust increases, the perceived risks decrease (Teo & Liu, 2007). Trust and perceived risks have a reciprocal and negative relationship (Hsin Chang & Wen Chen, 2008). Perceived risks exert a negative effect on consumers’ attitudes toward online shopping (Teo & Liu, 2007) and online purchase intentions (e.g., McKnight, et al., 2002; Miyazaki, & Fernandez, 2001). Therefore, consumers with a higher level of trust are more likely to shop online since they feel fewer risks. Trust reflects people’s willingness to take risks. Trust is a
strategy for consumers to deal with uncertainty. Consumers need to be willing to be
vulnerable to the uncertainty of others’ actions and future outcomes (Kim, Ferrin, & Rao, 2008). Willingness to take risks differs from risking behaviors. Risking behaviors are
outcomes of trust (Sitkin & Pablo, 1992). When consumers are more willing to take risks,
they are more likely to involve in risking behaviors such as purchasing online.

A variety of factors affect the perceived risks such as consumers’ age, gender,
shopping experiences, product characteristics, and website attributes (e.g., Liebermann &
Stashevsky, 2002; Pires, Stanton, & Eckford, 2004). Thus, these factors may also affect trust
due to the negative relationship between trust and perceived risks. Internet experiences and
online shopping experiences reduce perceived risks. Younger consumers feel fewer risks than
older ones probably because they spend more time online and shop more online, thus they are
more confident in online shopping (Liebermann & Stashevsky, 2002). Females perceive
higher risks of online shopping than males, especially privacy risks (Garbarino &
Strahilevitz, 2004). The perceived risks are higher for high-involvement products than low-
involvement products. High-involvement products are products that are more expensive and
need a long consideration and a complex purchase decision process. Low-involvement is
products that are low-cost and do not need a long consideration (Pires et al., 2004).
Antecedents of Online Trust

Previous studies examine antecedents of trust from following perspectives: relationships between offline trust and online trust (e.g., Beldad, De Jong, & Steehouder, 2010; Corritore et al., 2003), company/organization (e.g., Chen, 2006; McKnight et al., 2002), design of websites (e.g., Gefen et al., 2003; McCloskey, 2006), characteristics of individual customers (e.g., Gefen, 2000; Teo & Liu, 2007), and culture (e.g., Gefen & Heart, 2006). Although a lot of previous studies have examined the antecedents of trust, they do not investigate the effect of interactivity of online shopping websites on trust. This study will fill the gap.

Results of offline trust could be applied to online trust (e.g., Corritore et al., 2003). Online trust is the extent to which consumers trust online individuals or organizations, while offline trust refers to the extent to which consumers trust offline individuals or organizations. Appearances refer to the website design in online shopping contexts. Studies have found retailers’ reputations, performances, and appearances are important for building both online trust and offline trust (e.g., Corritore et al., 2003). Also, risks, fear, costs, and complexities are negatively related to both offline trust and online trust. The difference is the object of offline trust is just an individual or a company, while that of online trust includes the online information system in addition to an individual or a company (Marcella, 1999). Pavlou
(2003) argued online shoppers faced two major risks including losing their money and privacy disclosure. Privacy is more critical for online consumers than offline consumers.

The characteristics of websites that affect trust include perceived ease of use (McCloskey, 2006), information quality (Liao et al., 2006; Sillence et al., 2004), design features (Cyr, 2008; Ganguly, Dash, Cyr, & Head, 2010), social presence cues (Tu & McIsaac, 2002; Weisberg, Te’eni, & Arman, 2011), personalization (Serino, Furner, & Smatt, 2005), privacy level (e.g., Hoffman et al., 1999; Wang, Lee, & Wang, 1999), and third-party guarantees (e.g., Pavlou & Gefen, 2004). When consumers visit a new website, they engage in a fast screening process and then carry out an in-depth examination of the preliminary trusted websites. Ease of use of electronic commerce is positively related to trust in electronic commerce (McCloskey, 2006). Consumers would distrust websites with poor design, complex layout, and lots of pop-ups. They would like to trust websites that protect their privacy and have security signs (Seckler, Heinz, Forde, Tuch, & Opwis, 2015). Websites that are perceived to be trustworthy are those who offer high-quality information and original content. Besides, trust and social cues are mediators of past online purchases and intentions to purchase in the future (Weisberg, Te’eni, & Arman, 2011).

Many researchers examine antecedents of trust from the perspective of individual customers. Individuals’ disposition to trust is different. Some people are more likely to trust the other party than others. Disposition to trust is positively related to trust in online retailers
Consumers’ experiences and proficiency in online shopping also influence their trust. A savvy customer who is familiar with online shopping is more likely to trust online retailers (e.g., Metzger, 2006). Customers who are open-minded, extravert, emotional are more likely to shop for hedonic motivations. Those who are conscientious are more likely to shop for utilitarian motivations (Chen & Lee, 2008).

Consumers are involved in a website with different levels. Consumers with low involvement on a website would assess the information relying on heuristic cues such as websites’ attractiveness, structural assurance, and reputation. Consumers with high involvement would examine information quality or service quality more carefully with intense cognitive efforts (Zhou, 2012). Customers’ satisfaction is also positively related to their trust (Ribbink, Van Riel, Liljander, & Streukens, 2004).

Online retailers’ characteristics also play a key role in building consumers’ trust. Customers’ trust increases if they feel online retailers are honest (Seckler, et al., 2015), large (e.g., Teo & Liu, 2007), exist offline (e.g., Kuan & Bock, 2007), and have good reputation (e.g., Chen, 2006; Teo & Liu, 2007) and rich experiences of online transactions (e.g., Gefen, 2000; Mollering, 2006).
Online Product Reviews

Face-to-Face WOM and e-WOM

Word-of-mouth (WOM) is customers’ unpaid interpersonal communication about a product, service, or company (Sun, Youn, Wu, & Kuntaraporn, 2006). e-WOM is “customers’ unpaid communication about a product, service, or company on the Internet” (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004, p. 39). WOM exerts great influences on consumers’ purchase intentions or behaviors (Baker, Donthu, & Kumar, 2016) and adoptions of new products or services (Chevalier & Mayzlin, 2006). Word-of-mouth can occur interpersonally or online. For computer-mediated WOM, word-of-mouth can happen between customers and acquaintances (e.g., social networking sites) or between customers and strangers (e.g., recommendation sites, blogs, online forums, chat rooms). More than half of consumers make purchases due to e-WOM from blogs while 40% from Facebook. Studies have found interpersonal WOM is more impactful on consumers’ purchase intentions than e-WOM. However, e-WOM can spread the word faster and reach more diverse groups of consumers (Meuter, McCabe, & Curran, 2013).

Prior studies have focused on the characteristics of the text content of product reviews. Product reviews are one type of e-word-of-mouth (e-WOM). They offer products information from customers’ perspectives, minimize information asymmetry, and help customers make online purchase decisions. Consumers read product reviews in order to get more information
about a product or product usage experiences from other consumers who purchased it rather
than building relationships with other customers. The characteristics of reviews affect
consumers’ attitudes including valences (positive or negative), review extremity, review
depth, review volumes, and product types (Lee, Park, & Han, 2008; Park & Lee, 2009).

**Product Reviews, Trust, and Sales**

Scholars pay attentions to product reviews and credibility and trust. Credibility refers
to positive aspects of sources (source credibility) or messages (message credibility) that may
have an impact on audience’s acceptance and attitudes (Ohanian & Roobina, 1990). The
difference between credibility and trust is credibility does not involve risks. A variety of
factors affect credibility including characteristics of sources (e.g., expertise, reputation),
messages (e.g., information quality, reliability), media (e.g., website design), and receivers
(e.g., knowledge, motivation, cultures) (Wathen & Burkell, 2002).

Studies that examine product review and trust focus on messages’ trustworthiness.
Filieri (2016) conduced an in-depth interview on 36 participants who had experiences of
using online reviews on travel websites. He found the length, details, pictures increase
reviews’ trustworthiness. Consumers reported long reviews were more trustworthy than short
reviews because they contained facts and details. Picture views were more trustworthy since
they provided vivid information. Also, the extremity and valence of reviews also affected
trustworthiness. Consumers perceived strongly positive or negative reviews were not
trustworthy because they might be reviews manipulated by retailers or their competitors.

Consumers also evaluated reviewers’ profile to decide if the source was trustworthy. They believed reviewers who posted many reviews or were traveling experts were more trustworthy than those who posted fewer reviews or had less expertise or knowledge about the destination. Consumers also examined reviews’ patterns. If a large proportion of reviews complained similar issues, consumers would trust it. If there were diverse reviews, some consumers may read the overall ratings. Reviews with same wording or repeated reviews were untrustworthy. Savvy consumers were more capable of spotting fake reviews. Finally, the medium also affected consumers’ trust in reviews. Third-party e-commerce sites, third-party review sites, or online forums were more trustworthy than retailers’ official sites.

Studies have found product reviews affect product sales (e.g., Chevalier & Mayzlin, 2006). Chevalier and Mayzlin (2006) investigated the relationship between book reviews and sales on Amazon.com and Barnesandnoble.com. There were much more positive reviews on the two sites than negative ones. Reviews on Amazon.com were longer than that on Barnesandnoble.com. Book sales grew as positive reviews or overall ratings increased. Strongly negative reviews were more impactful on sales than strongly positive reviews. Cui, Lui, and Guo (2012) reported the total amount of reviews was more important for new product sales, but this impact weakened over time. Also, product types moderate the relation between reviews and sales. The effect of reviews’ amount is more important for sales of
experience products than search products. The valence of reviews is more impactful on sales for search products than experience products. Negative product reviews exert a negative impact on customers’ shopping intentions (Li et al., 2007). However, negative book reviews on *New York Times* decreased book sales of famous authors whereas increased book sales of unknown authors because they enhanced the book awareness (Berger, Sorensen, & Rasmussen, 2010).

Product types are a moderator of the relationship of product reviews and customers’ attitudes (Lee & Shin, 2014). Products are categorized as search products and experience products. It is easy for customers to access information of search products’ attributes and qualities prior to purchases. Examples of search products are laptops and cameras. Consumers are more likely to purchase search products for utilitarian motivations. On the other hand, it is difficult for consumers to evaluate experience products’ attributes and qualities prior to purchases. Subjective attitudes of products affect customers’ decisions. Examples of experience products are music, wine, and food. Consumers are more likely to purchase experience products for hedonic motivations. Product reviews of experience products are more subjective and idiosyncratic than that of search products.

Negative e-word-of-mouth has a greater impact for experience products than search products (Park & Lee, 2009). For experience goods, the content quality exerts a greater impact for negative reviews than positive and mixed reviews (Chua & Banerjee, 2016).
Product types moderate the effect of reviews’ extremity and depth on reviews’ helpfulness. Consumers perceive mixed or neutral reviews are more helpful than extreme reviews for experience products. For search products, product types do not affect the effect of review extremity on review helpfulness. Also, review depth is more impactful on review helpfulness for search products than for experience products (Park & Lee, 2009).

Consumers’ characteristics also affect reviews’ effect on their perceptions or behaviors. According to Elaboration Likelihood Model (Petty & Cacioppo, 1986), there are different types of customers. High-involvement consumers are those who scrutinize reviews and involved in the highly cognitive process of evaluation. Low-involvement customers are those who spend less time and effort in reading and thinking about reviews. Reviews qualities are different. High-quality reviews are easy to understand and relevant to products and customers’ needs. High-quality reviews provide sufficient and credible information. On the other hand, low-quality reviews are difficult to understand and irrelevant to products and customers’ needs. Low-quality reviews provide insufficient and incredible information (Petty & Cacioppo, 1984). Lee et. al. (2008) reported a simple review (low-quality review) affected attitudes of both high-involvement and low-involvement consumers. Consumers are more likely to conform to high-quality negative reviews than low-quality reviews.
Hyperpersonal Communication

Hyperpersonal model suggests computer-mediated communication (CMC) exceeds face-to-face (FtF) interaction and become hyperpersonal interaction. Walther (1996) argues CMC has three phases including impersonal, interpersonal, and hyperpersonal. Early research investigated CMC by a cues-filter-out perspective. Early scholars suggested CMC was impersonal and more task-oriented since it lacked nonverbal cues compared to FtF communication. The fewer communication codes in early CMC such as emails or computer-mediated conferencing made it difficult to deliver personal (e.g., appearances, moods), social (e.g., social status), context (e.g., physical environment), and non-verbal cues (e.g., facial expressions, gestures) (Kiesler, Siegel, & McGuire, 1984; Daft & Lengel, 1987). Other studies suggested CMC can develop social relationships as FtF by a social information processing approach. However, scholars argued each CMC message contains less social information and CMC developed social relationships slower than FtF (Walther & Burgoon, 1992). Walther (1996) argues CMC can exceed FtF and become hyperpersonal interaction. He suggests CMC is an asynchronous communication that allows senders to have ample time and greater opportunities to edit and refine their messages, which optimizes self-presentation and manages impressions. The receiver may build idealized impressions toward the sender. Based on hyperpersonal model, electronic word-of-mouth also has some advantages and its unique characteristics compared to Face-to-face word-of-mouth.
**Communication Cues**

In the face-to-face word of mouth, families or friends recommend products or service by verbal or non-verbal language that show their attitudes, experiences, emotions, and feelings (Table 2.1). The computer-mediated online product reviews provide information by texts, photos, or videos. However, the lack of non-verbal cues such as the appearance, facial expressions, postures, gestures may create fewer emotions and feelings to others. Photo or video reviews are more capable of delivering rich information and nonverbal cues than text reviews. Berger and Iyengar (2013) found written communication (texts, emails) allows people to mention more interesting products and brands than oral communication (phone and face-to-face). Ramirez and Burgoon (2004) reported a greater degree of modality can lead to higher level of interactivity, reduce uncertainty, and be more likely to develop positive relationships.

**Volume and Diversity**

The review volume or diversity of face-to-face WOM is smaller than computer-mediated product reviews (Table 2.1). Customers usually obtain recommendations for the same product from families or friends. The number of families and friends is much smaller than that of online customers. On one hand, online customers can access more customers who purchase the same product and more product information. On the other hand, customers can only read or remember a few reviews. They may make decisions by some peripheral cues.
such as star ratings or the product popularity. Liu (2006) found e-WOM volume exerts greater impacts on box office than valence. However, Meuter, McCabe, and Curran (2013)’s study suggests WOM volume does not necessarily lead to customers’ positive perceptions.

**Presentation Order**

The presentation order of product reviews is more important for online product reviews than face-to-face WOM due to a massive number of reviews and human being’s limited capacity of information processing (Table 2.1). The presentation order depends on the web design. There are two sections of reviews on Amazon including the top reviews and the most recent reviews (Table 2.2). In the top review section, reviews appearing first are voted as the most helpful ones by other customers appear first. The most recent reviews display chronologically. Customers can also filter and read photo reviews or positive (e.g., five-star reviews), neutral, (e.g., three-star reviews) or negative reviews (e.g., one-star reviews). On Tmall, product reviews display chronologically. Customers can read photo reviews only or similar reviews such as reviews about qualities, shipping speed, or services. Also, some customers post reviews for the first time when they receive the product and then post reviews again after a period of time when they have used the product.

Different customers may make purchase decisions based on different information of product reviews since they are not able to read all reviews. For example, the top reviews may be the motivators of purchase decisions for some shoppers while the most recent ones are
more important for others. Some customers may prefer photo reviews. They may also make
decisions by some peripheral cues such as overall star ratings or the product popularity. It is
also possible to read positive or negative reviews to see the pros and cons customers have
mentioned.

**Valence**

In face-to-face WOM, people can obtain the positive or negative assessments about
the product immediately in the communication with referral sources (Table 2.1). Similarly,
there are positive, neutral or mixed, and negative product reviews online. The difference
between FtF WOM and online product reviews is the latter can display customers’
evaluations in multiple ways depending on website designs. Customers can read the overall
star ratings to understand the summary of all reviews. Amazon’s customers can read positive
(five-star reviews) or negative reviews (one-star reviews) only. However, on Tmall, positive
or negative reviews are mixed together. Customers cannot read positive or negative reviews
only (Table 2.2).

Liu (2006) found e-WOM valance is less influential on box office than volume.

Information valence affects users’ interactivity perceptions. When customers receive positive
information, they feel more interactive when adding more visual cues. However, when they
receive negative information, the perceived interactivity decreases when adding visual cues
(Ramirez & Burgoon, 2004). Previous studies suggest the “negative bias”, which refers to the
negative aspects are more impactful on people’s than neutral or positive aspects (Park & Lee, 2009). Anderson (1998) reported the most satisfied and dissatisfied customers are more likely to spread WOM. Although dissatisfied customers are more likely to spread the word, the difference between satisfied customers and dissatisfied ones are exaggerated. Customers are more likely to be affected by negative reviews than positive ones. However, the quantity of positive reviews could be large enough to overcome the effect of negative ones (Huang & Chen, 2006). On Amazon, consumers can evaluate product reviews as helpful or non-helpful. Review valences are related to perceived helpfulness of product reviews. Chua and Banerjee (2016) reported customers believed positive reviews were more helpful than neutral or mixed reviews. Negative reviews were perceived as the least helpful reviews. The more amount of negative reviews exists, the more likely customers will form negative attitudes about a product (Lee, Park, & Han, 2008).

**Synchronicity and Selective Presentation**

Face-to-face WOM is synchronous communication whereas online product reviews are asynchronous (Table 2.1). Selective presentation happens when online shoppers have more time to create, edit, and enhance the language. Customers can also display more visual information by phones or videos. For example, they can post a photo of the broken laptop or a photo when they wear the dress. In contrast, Face-to-face WOM shows the product features or usage experiences by verbal or non-verbal language. People usually talk about the product
features or experiences in their heads since they don’t have much time to think about them.

Berger and Iyengar (2013)’s experiments concluded people are more likely to mention more interesting products and brands when they pause before oral communication because they have more time to construct and refine the content. When people do not have much time, they may talk about top-of-mind products or brands. Thus, compared to face-to-face WOM, Online shoppers may talk about more interesting features or experience when posting product reviews since they have more time to edit and refine their reviews.

Social Ties and Anonymity

Face-to-face WOM exists when people recommend products or services to their friends or families (Table 2.1). The social ties are strong. People involved are familiar with each other. They know the gender, age, race, occupation, and appearances of referral sources. They may even know if the referral sources have the expertise of the product. People are able to evaluate if the referral source is credible. Online product reviews are anonymous. Reviews are strangers for other customers. The social ties are weak. Amazon reviews display either reviewers’ account names or show the names as “Amazon Customers” when they do not want to disclose their names. Most Tmall customers post reviews anonymously. Online shoppers can assess reviewers’ credibility depending on websites’ features. For example, Amazon customers can see one reviews’ rankings, the number of followers, and the number of helpful reviews for others. They can also read all reviews one shopper posts. Tmall
shoppers can see reviewers’ membership levels from T1 to T4 even they are anonymous. The membership level is depending on shoppers’ frequencies of online purchases and signing in their accounts and the money they have spent. Consumers are more likely to be honest, disclose more personal information, and perceive less social anxiety online due to the anonymity nature of the Internet (Sun et al., 2006).

Generally, strong ties are more impactful than weak ties (Brown & Reingen, 1987). Strong ties make the communication to be close, reciprocal, and indebted compared to weak ties (Rindfleish & Moorman, 2001). On the other hand, weak ties help spread messages more rapidly and reach more groups of people since people with weak ties usually are in different groups and have diverse backgrounds (Granovetter, 1973). Meuter, McCabe, and Curran (2013) reported Interpersonal WOM for a restaurant from close friends (strong ties) make customers more likely to eat at the restaurant than e-WOM such as recommendations on Yelp.com or testimonials on the restaurant’s site (weak ties). However, there is no significant difference between WOM from Facebook friends and strangers on Yelp.com in terms of intentions to eat at the restaurant and trust in WOM. One possible reason is interpersonal WOM involves more emotions, social attractiveness, and stronger ties. In contrast, some Facebook friends have strong ties whereas others have weak ties. Also, interpersonal WOM may obtain more attentions and engagement. Massive information on Facebook may distract customers.
**Review Extremity and Depth**

Reviews can be strongly positive, strongly negative, and moderate. In the five-star rating system, extreme reviews are one or five stars whereas moderate reviews are two to four stars. The effect of review extremity depends on contexts. Studies have confirmed two-sided information is more credible and persuasive than one-sided information when customers have an unfavorable or moderate attitude (Pavlou & Dimoka, 2006). Two-sided information is the message that supports one position and opposes another position. Pavlou and Dimoka (2006) reported strongly positive or negative reviews were more impactful than neutral reviews on eBay. Similarly, Forman, Ghose, and Wiesenfeld (2008)’s study turned out extreme book reviews were more useful than neutral book reviews. Mudambi and Schuff (2010) investigated more than 1500 reviews on Amazon. They reported mixed or neutral reviews were more helpful than extreme reviews for experience products. The deeper the reviews were, the more helpful consumers perceived reviews could be. However, the effect of review depth on helpfulness was stronger for search products than for experience products (Mudambi & Schuff, 2010).

**Social Presence**

Central to the Social Presence Theory is the belief that “the presence of the information sender influences recipients’ understanding of the message” (Miranda & Saunders, 2003, p.89). The availability of more social cues in a communication medium
generates a higher level of social presence, resulting in higher social pressure and normative influence on group members. Traditional unmediated face-to-face (FtF) verbal communication has the highest social presence, while computer-supported media have lower levels of social presence (Miranda & Saunders, 2003) (Table 2.1).

Table 2.1

<table>
<thead>
<tr>
<th>Differences between Face-to-Face WOM and Online Product Reviews</th>
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<tbody>
<tr>
<td><strong>Communication cues</strong></td>
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<td>------------------------</td>
</tr>
<tr>
<td>Verbal and nonverbal language</td>
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<td><strong>Volume and Diversity</strong></td>
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<td><strong>Presentation order</strong></td>
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<td><strong>Valence</strong></td>
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<td><strong>Selective presentation</strong></td>
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<td><strong>Synchronicity</strong></td>
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<td><strong>Social presence</strong></td>
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<td><strong>Social ties</strong></td>
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<td><strong>Identity</strong></td>
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<td><strong>Credibility</strong></td>
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Table 2.2

<table>
<thead>
<tr>
<th>Differences between Amazon and Tmall Product Reviews</th>
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<tr>
<td><strong>Communication cues</strong></td>
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<tr>
<td>Texts, photos, videos</td>
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<tr>
<td><strong>Valence</strong></td>
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<tr>
<td><strong>Review length</strong></td>
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<tr>
<td><strong>Presentation Order</strong></td>
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<tr>
<td><strong>Anonymity</strong></td>
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<tr>
<td><strong>Social presence</strong></td>
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<td><strong>Interaction among customers</strong></td>
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**Interactivity**

Online shopping experiences lack interpersonal communication compared to the offline shopping, but interactive features make online shopping experiences more interesting, participative, and engaging. One key characteristic of Web 2.0 is users can interact and collaborate with each other actively rather than just receiving information passively in Web 1.0. In an offline shopping environment, consumers have face-to-face communication with retailers. However, in an online shopping environment, consumers interact with new media devices (e.g., computer or mobile phones) or online platforms (e.g., websites, apps, etc.). In the interactive online context, consumers have more user controls over websites such as searching product information or engaging in two-way communication with online retailers or customer representatives.

**Definition**

Scholars define interactivity from diverse perspectives. Rafaeli (1988) defined interactivity as messages in response to earlier messages. Yun (2007) challenged this definition by arguing that sometimes a communicator may not provide any responses when receiving earlier messages. Rogers (1995) defines interactivity as the extent to which individuals could control the mutual discourse and exchange roles. Ha and James (1998) defined interactivity as the extent to which two communication parties would like to respond to each other’s communication needs. Some scholars consider interactivity from users’
perspectives (Schumann, Artis, & Rivera, 2001). They argue interactivity is user’
characteristics instead of an attribute of an information system. The information system helps
build interactivity. Merrilees (2002) suggested several characteristics of interactivity. Firstly,
interactivity is a two-way communication. Also, users can personalize the situation in
interactive communication. Besides, interactivity is related to users’ capability of control.
Finally, in a broad view, interactivity affects users’ overall experiences. McMillan and
Hwang (2002) reviewed the prior research and summarized that interactivity could be defined
from three perspectives including features, processes, and perceptions. Interactivity is defined
as characteristics of an interactive information system or communication environment from
the perspective of features. Interactivity refers to actual interaction activities from the
perspective of processes. Interactivity could also be defined as users’ perceptions to what
extent the interaction or communication is interactive.

This study focuses on users’ subjective perceived interactivity instead of interactivity
as objective website features since the perceived interactivity may have a greater impact on
consumers’ trust than website features that may not be used. The perceived interactivity is the
extent to which people perceive their experiences simulate interpersonal interaction and feel
the existence of social actors (Thorson & Rodgers, 2006). The perceived interactivity varies
for different users or consumers even they interact with the same information system. The
perceived interactivity is different from the interaction. The interaction is human actions,
behaviors, and processes. On the other hand, in this study, perceived interactivity is users’ perceptions.

**Interactions of Online Consumers**

Interaction is closely relayed to interactivity. Blumer (1986) defined interaction from the perspective of interpersonal communication. Interaction is human actions aimed at each other and it involves the relationship between two or more human beings. In computer-mediated communication, interaction refers to human actions with information systems, information, or human beings through information systems. Hence, interaction in computermediate communication involves relations of human-information systems, human-human, or human-information.

When consumers purchase online on retailers’ websites or apps, there are three types of interactions including interaction with information systems, information, and human subjects. 1) *Interaction with information systems*. Consumers interact with information systems such as computers, laptops, mobile devices, etc. when they shop online. They click, browse, or manipulate on the interfaces of these media devices. 2) *Interaction with information*. Consumers access information or content on retailers’ websites or apps. They can search or browse information about products, services, retailers, etc. The prior two interactions are impersonal interactions in which consumers interact with impersonal subjects. 3) *Interaction with human subjects*. Consumers can also interact with human
subjects such as retailers and other consumers by interacting with information systems. It is an interpersonal interaction. Consumers can interact with retailers or customer representatives through live chat or leaving a comment. Also, they can communicate with other customers such as asking a question or voting other customers’ product reviews.

Finally, product reviews may affect consumers’ cognitions, emotions, or behaviors. Cognitively, consumers will think about the information about products or retailers they receive. Emotionally, they may have different perceptions such as satisfaction, dissatisfaction, enjoyment, or disappointment of shopping experiences. Behaviorally, they may purchase a product, navigate away from the site, post product reviews, or share the product they purchase to their social networks. The action step may not always occur after consumers’ interaction with information or human subjects. Consumers may directly make a purchase on a website without further browsing web pages when they have made a decision before visiting the retailers’ websites.

*Figure 2.1 Interaction of online consumers*
This study focuses on the perceived interactivity when consumers interact with product reviews on retailers’ websites. Interaction with human subjects is a two-way communication in which consumers obtain responses from retailers or other customers. Interaction with product reviews could be a one-way or two-way communication. When consumers read product descriptions or product reviews, it is one-way communication. However, two-way communication can occur when customers interact with product reviews. On Amazon’s product review pages, consumers can ask other customers a question or communicate with reviewers and obtain replies from them. It could be one-to-one communication in which consumers interact with a reviewer or one-to-many communication in which a consumer asks a question about a product and obtains multiple answers from different consumers. On Tmall, after consumers write a review, they may obtain retailers’ replies. This interaction or communication is usually asynchronous since consumers may not obtain replies right after they ask.

The perceived interactivity of product review use is to what extent consumers perceive the experiences of interaction with product reviews simulate interpersonal interaction and feel the existence of social actors (Thorson & Rodgers, 2006). It varies based on consumers’ actions and participations. The perceived interactivity differs when consumers read textual reviews, image reviews, or watch video reviews. It also differs between consumers who just read product reviews and those who communicate with reviewers or
retailers. Hence, this study will dig into consumers’ perception of interactivity of product review use experiences.

**Interactivity and Trust**

The importance of the perceived interactivity of product review use experiences can be understood from the value creation and trust building in e-commerce. The locus of value and value creation shifts from a product-centric or firm-centric to customer experience-centric perspective (Prahalad & Ramaswamy, 2004). The winning player in e-commerce is the one who can offer the best online shopping experiences instead of just good products. Today’s customers not only pay for products, but also pay for their feeling and experiences in the shopping process (Bilgihan, 2016). The online shopping process involves not only experiences of product information consumption, but also interactive experiences with websites. Interactive experiences with websites could be informative, enjoyable, satisfying, or comfortable whereas it could also be disappointing, dissatisfying, and frustrating.

Pine and Gilmore (1999) proposed the concept “experience economy”. In traditional business, companies create the value of products. Customers do not participate in value creation while they just passively buy products and finish transactions. In contrast, in the new experience business, the value is co-created by both companies and customers. Customers are more knowledgeable, informed, powerful, and connected than ever (Prahalad & Ramaswamy, 2004). Online shopping websites’ atmosphere exerts an impact on consumers’ attitudes and
satisfaction (Eroglu, Machleit, & Davis, 2003). Thus, it is necessary to examine not only the content of product reviews but also how the product review is being processed as a consumer-retailer interaction experience in which product reviews are a big part of the trust building process. This study focuses on the perceived interactivity of product review use experiences, in order to give marketers some insights about how to enhance consumers’ trust by improving their interactive experiences of online product review use.

Interactivity is positively related to consumers’ trust in online shopping contexts (Alotaibi & Rigas, 2008; Lee, 2005; Merrilees & Fry, 2003). Compared to offline shopping, online consumers perceive more risks and are less trusting toward online retailers because of the uncertainty of actual products, stores, and employees and the concern about transaction security, product quality, or personal privacy issues, etc. However, some features in online shopping contexts can improve trust such as interactivity. Levels of users’ trust are higher in the interactive conditions than in the non-interactive conditions (Alotaibi & Rigas, 2008). Merrilees and Fry (2003) have concluded interactivity is positively related to consumers’ trust when shopping on three retailers’ websites including Amazon, CD Now, and Sanity. Interactivity is also positively related to trust in mobile commerce. Specifically, five interactivity dimensions including user control, responsiveness, connectedness, ubiquitous connectivity, and contextual offer are positively related to trust in mobile commerce (Lee,
Interactivity affects people’s evaluation of the credibility of the e-word of mouth messages (Levy, & Gvili, 2015).

Information systems are perceived by users as a medium that possesses both technology and human characteristics. In offline shopping context, people can make a decision about a seller’s trustworthiness especially an unfamiliar one based on sellers’ characteristics, physical stores, or service quality, etc. In the online context, they judge an online seller’s trustworthiness based on their experiences of interacting with websites (Wu, Hu, & Wu, 2010). The more interactive users perceive, the more likely they will treat information systems as social actors with human characteristics, which can help build trusting relationships (Wang & Benbasat, 2005). Perceived interactivity is a key element that affects consumers’ attitude toward the website (Johnson & Grayson, 2005), perceived website’s quality and effectiveness (Teo et al., 2003), and intention to buy (Jiang & Benbasat, 2007). A fast, seamless, and safe experience of interacting with a website can enhance users’ positive attitude toward and confidence in the website, which in turn helps build trust in online retailers.

Previous studies have shown websites’ interactivity features play a crucial role in customers’ satisfaction and customer relationship building and maintaining (Campbell, 1997; Hanson, 2000; Peppers & Rogers, 1993; Thorbjornsen, Supphellen, Nysveen, & Pedersen, 2002). More importantly, interactivity makes consumers more involved and enhances their
intention to visit a retailers’ website and finally makes them more likely to purchase online (Fiore, Jin & Kim, 2005). Interactivity features help online retailers to segment customers (Jackson & Wang, 1994), build relationships with new consumers (Hanson, 2000), maintain old customers (Campbell, 1997), and improve customer loyalty (Srinivasan, Anderson, & Ponnavolu, 2002). Fan, Lee, and Kim (2013) proposed five dimensions to measure the website quality including convenience, contents, aesthetics, interactivity, and customization. The result indicates interactivity is the only dimension that is significantly related to both website flow and customer satisfaction. Besides, interactivity also has an impact on the willingness of online purchases. Fiore et al. (2005) experiment showed the image interactivity was positively related to stimulating experiences, emotional arousal, and pleasure. The willingness to purchase online increased with a higher level of emotional arousal.

However, the effect of interactivity of product review use on trust has not been thoroughly examined. Product reviews are an important channel for word-of-mouth. Previous studies focus on the overall perceived interactivity on websites or mobile apps while ignoring the relationship between interactivity and trust (e.g., Alotaibi & Rigas, 2008; Lee, 2005). The effect of product reviews on consumers’ trust has been confirmed in previous studies, but these studies do not investigate specifically the effect of the interactivity of product reviews. Features of product reviews that affect trust include the argument quality, the perceived
similarity of reviews, review valence, and the numerical ratings (Sparks & Browning, 2011).

This study will fill in the gap. It assumes the more interactive customers perceive in their product review use experiences, the more likely they would trust in online retailers.

**Dimensions**

Previous researchers have different opinions about interactivity dimensions. Ha and James (1998) proposed five interactivity dimensions including playfulness, choice, connectedness, information collection, and reciprocal communication. Yun (2007) proposed four interactivity dimensions including response time, hypertext, role taking, and multimodality. Cyr, Head, and Ivanov (2009) examined three components of interactivity including responsiveness, connectedness, and user control. Lee (2005) investigated six components of interactivity including responsiveness, connectedness, user control, personalization, ubiquitous connectivity, and contextual offer. The three interactivity dimensions that are most important for the experiences of product review use and affecting trust in online retailers examined in this study including 1) perceived social presence, 2) perceived personalization, and 3) perceived playfulness.

**Social presence.** Social presence refers to the awareness of the existence of others psychologically. The essential difference between online and offline shopping is the lack of presence and interaction with real human beings. Some researchers suggest social presence is depending on the extent to which social cues, facial expressions, gestures, non-verbal cues
can be transmitted in the communication (Short, Williams, & Christie, 1976). Other scholars emphasize if communicators perceive human warmth, sociability, and human contact (Yoo & Alavi, 2001). Online shopping lacks social presence compared to offline shopping. However, in the e-commerce context, there are plenty of attributes that can convey social presence. Some web features such as live chat or virtual communities lead to a higher level of social presence since they could allow online consumers to interact with actual people.

Social presence is related to media richness. Social presence theory argues face-to-face communication has the highest level of social presence while written communication has the least. Social cues and photos play a key role in the success of e-commerce sites (Dormann, 2001). Visual messages can create a greater sense of social presence than written messages (Rice, Hughes, & Love, 1989; Straub & Karahanna, 1998). Photos with facial expressions or human bodies can create a sense of social presence (Gefen & Straub, 2003). Photos of players make them more likely to cooperate with each other in a social dilemma game (Zheng, Veinott, Bos, Olson, & Olson, 2002). Online articles containing pictures can enhance credibility and make the audience to trust those articles more (Fogg, 2002). Photo product reviews (Figure 2.2) or video product reviews (Figure 2.3) may be more effective than textual reviews for transmitting complex messages and decreasing ambiguity since they convey more information about products such as colors and shapes, which reduces customers’ risks. Two examples below (Figure 2.2 & 2.3) display the consumers’ physical
features such as genders, appearances, facial expressions, moods, emotions, and gestures, which allow people to perceive the presence of human being. Media-rich product reviews increase the credibility of information sources since customers perceive the reviews reflect real customers’ experiences. Also, they deny early research’s arguments that suggest CMC is impersonal and more task-oriented that is difficult to deliver personal, social, context, and non-verbal cues (Kiesler, Siegel, & McGuire, 1984; Daft & Lengel, 1987). Thus, media-rich product reviews increase the sense of social presence, then may reduce customers’ perceived risks and increase their trust in e-retailers.

Figure 2.2 A photo product review on Tmall
Figure 2.3 A video review of selfie stick on Amazon

Text reviews can also reflect social presence. Cues that reflect social presence in face-to-face commutation are similar in computer-mediated communication such as responses showing personality, gender stereotypes, politeness, and flatteries (Nass, Moon, Carney, 1999; Fogg & Nass, 1997). The warm and appropriate language would also induce social presence (Nass & Steuer, 1993). Text that can induce imagination and fantasies about using a product can increase favorable attitudes and purchase intentions (Fiore & Yu, 2001). Emotive text descriptions with products’ touch properties can create a sense of social presence (Gefen & Straub, 2003). For example, “This eye cream is very moist and not goopy” is more likely to induce social presence than a general description such as “This is a nice eye cream”. Reviews showing personal feelings or positive or negative attitudes such as using words “feel”, “love”, “like”, “satisfied” may also induce readers’ perception of social presence. The following
examples are different reviews about a pair of shoes on Amazon. The long review (Example 1) describes details of the customer’s use experiences and feelings. In contrast, the short review (Example 2) just describes features of the shoes. Customers may perceive a higher level of social presence when reading the long review than the short one.

**Example 1:**

“I fell in love with Birkenstocks when I lived in Germany. After 1 years of faithful service, my birks were all wearing out, so I went searching for replacements. Aside from severe sticker shock at the U.S. prices (yes, they have Birkenstock OUTLETS in Germany), this source was perfect with lots of variety and choices. I am a huge fan of the soft footbed and caution women with average width feet buy the “narrow” birk instead of the regular for better fit.”

**Example 2:**

“Product was exactly as it was advertised. Prompt delivery.”

Product reviews simulate a virtual social context in which many customers discuss about a product and exchanging opinions. The word-of-mouth of many reviewers about a product may simulate consumers’ imagination of discussion with others. Especially, some customers are satisfied with a product while others are not. In this case, it seems different customers are arguing with each other, which simulates interpersonal social interaction and sociability. In contrast, other website features such as navigation bars or site maps cannot convey warmth and sociability.

Extensive studies have found social presence is positively related to trust in online retailers (e.g., Cyr, Hassanein, Head, & Ivanov, 2007; Gefen, & Straub, 2004; Weisberg, Te'eni, & Arman, 2011). Trust exists in the social context when people build relations with
others in the sociological perspective. It is the foundation of building a harmonious society.

The society will become a system full of chaos and fear without trust (Luhmann, 1979). The social presence plays a key role in making users perceive human contact when interacting with the information system with warmth, sociability, and sensitivity to help build trust (e.g., Hassanein & Head, 2007; Rice & Case, 1983).

Social presence contributes to trust building. In offline shopping, consumers make transactions with people. In online shopping context, consumers feel more risks not only due to the lack of actual products, but also actual retailers and stores. Consumers consider online medium such as a computer as a social actor. When they purchase online through a medium interface, they perceive they are interacting with an actual person (Moon & Kim, 2001). People expect a high level of social presence when they shop on a website. If social presence experienced by customers is in accordance with their expectation, their trust will be increased (Blau, 1964; Luhmann, 1979). Social presence is not only positively related to trust, but also related to perceived usefulness and enjoyment (Hassanein & Head, 2004). It is a mediator of past online purchases and intentions to purchase in the future (Weisberg, Te'eni, & Arman, 2011). Description of products’ touch attributes is more persuasive than basic properties for motivating consumers’ purchase intentions (McCabe, 2001). Alotaibi and Rigas (2008) have conducted a controlled laboratory experiment and found participants perceived human-like
avatars were the most trustworthy, followed by multimodality messages that combined speech and auditory icons, while texts and graphics were the least trustworthy.

Mediated communication could be as effective as face-to-face communication. Richer media including face-to-face, video, and audio communication are significantly more effective than text communication (Bos, Olson, Gergle, Olson, & Wright, 2002). Video and audio conferencing are as effective as face-to-face communication. When users become more and more familiar with various media, they will be more proficient to supplement missed information and involve in deep understanding about messages (Burgoon, Bonito, Ramirez, Dunbar, Kam, & Fischer, 2002). However, it may take longer time for users to reach the same level of trust or cooperation through mediated media than face-to-face communication (Bos et al., 2002).

**Personalization.** Perceived personalization refers to the extent to which consumers perceive product reviews reflect customers’ personal use experiences and meet their demands in this study. Information techniques can track customers’ shopping preference, find targeted customers, and deliver personalized products or service. In online shopping context, customers may be exposed to personalized advertisements, personalized deals, personalized recommended products, etc. Some scholars emphasize the technical aspects of online personalization. Bonett (2001) defines personalization as the tailored content or services provided by online retailers to customers based on gathered consumers’ personal information,
browse or purchase history, or online activities. Blom (2000) suggests the goal of personalization is to enhance the relevance of a product to a customer.

Personalization is one key dimension of interactivity (Merrilees, 2002). Interpersonal communication is considered as one standard of interactivity. The more likely the mediated communication simulate the interpersonal communication, the more interactive the communication is (Heeter 1989). The essential characteristic of human-beings is each person is unique and different. In face-to-face communication, message recipients receive diverse opinions, experiences, or stories from different people. In the online context, people feel less interactive when they get general auto-replies in emails such as “Dear customer, we receive your messages. We will solve the problem as soon as possible.” People may feel more interactive when they obtain replies that mention their names and answer their specific questions.

Personalization is the essential difference between product reviews and product descriptions. Product reviews describe online consumers’ use experiences about a specific product whereas product descriptions are a standardized general description about a product. Many customers post reviews with pseudonyms or anonymously. However, one customer has one user name on an online shopping website. This user name is their online identity on the retail website. All their browse histories, shopping behaviors, or reviews posted are linked with their user names. Besides, product reviews reflect distinctive experiences from different
customers. This difference resembles interpersonal communication in which each real person is unique and different compared to the consistent and standardized auto-replies. Also, the more details of user experiences a customer provides, the more likely customers may perceive they are communicating with a real person, thus, the more interactive customers may feel. The following figures are the screenshots of two shoe reviews on Amazon. As Figure 2.4 shows, customers know that the reviewer’s occupation (attorney), his preference of shoes, and the details of his experiences and opinions. In contrast, the product review in Figure 2.5 is general and short. It does not provide any information about this customer’s identity and details about his use experiences. Customer may perceive a higher personalization of the review in Figure 2.4 than that in Figure 2.5.

Figure 2.4 High personalized product review on Amazon

As an attorney, I need to dress up a fair bit, and prefer my shoes in black. I am a no-nonsense person who likes clean, functional designs, and feel that these shoes are perfect for me. As long as the manufacturer makes these, I will buy them. It is amazing to me that leather business/dress shoes of this quality are available for a cheaper price than good sneakers.

Pros of this model:
1. High-quality leather. All of my pairs have worn in gracefully, without any strange wrinkling or other earmarks of low-quality leather.
2. Will take a shine if necessary. If you know how to spit-shine a shoe (ex-Army guy here), you can make them take a mirror finish with work. They also look good for court or other important appearances with a minimal brush shine.
3. Looks good without being shined. The semi-gloss finish retains its look for a long time.
4. Single-piece sole. I have been through more expensive pairs of Italian shoes than I care to count, fully half of which developed sole or heel problems walking the cobblestones of Boston (I don’t know if I have a peculiar way of walking or what, but a shoe has subpar design if it’s even possible for a heel to fall right off).
5. Good traction for a professional-looking shoe. This is because of the semi-hard rubber sole material and tread design.
6. Comfortable (very).
7. Cheap. You don’t have to worry about ruining them with wetter salt, or anything else; you can keep a knock-about pair. They are so cheap you can have a pair for every use. I have an extra pair just to throw at the cat. Or I would, if I had a cat.

Cons of this model:
1. Laces which fray easily. (Oh, well. You can’t have everything.)

These were a bargain and look like a higher priced shoe.

Figure 2.5 Low personalized product review on Amazon
Another important aspect of personalization concept is to what extent product reviews meet their own needs. When consumers call customer representatives, they may be directed to answering machines and obtain auto-replies, but the auto-replies may not answer their personal questions. On the other hand, if consumers talk to a real person or a customer representative, the individual can answer customers’ specific questions and solve their own problems. People perceive the latter experiences are more interactive since their personal needs are met. Similarly, consumers’ personal questions about a product are answered due to the diversity of product reviews. If a customer intends to know the color or shape of a product, a review that describes a customer like or dislike the product may not answer his/her question. However, another picture reviews showing the color and shape may answer it. Therefore, the extent to which product reviews meet their demands and answer customers’ own questions also play an important role in the concept of perceived personalization in this study.

Personalization could help reduce customers’ risks and build trust (e.g., Ball, Coelho, & Machás, 2004; Lee, & Lin, 2005; Rajamma, Paswan, & Ganesh, 2007). Xia and Bechwati (2008) examined cognitive personalization. They defined it as a mental operation by which a reader felt the experience described by a product reviewer had taken place to them. They have found the cognitive personalization affects customers’ purchase intentions and this effect is mediated by the perceived usefulness of a review. Perceived personalization
significantly increases consumers’ intention to adopt recommendation agent by improving both their cognitive and emotional trust (Benbasat, 2006). On the other hand, there is a privacy concern, especially when unfamiliar companies provide personalization services. Serino et al. (2005) reported that personalization had a negative effect on people’s trusting belief in the online retailers, probably because of the privacy concern. Companies can improve their capability of using customers’ information through increasing their trust in companies (Chellappa & Sin 2005).

This study proposes perceived personalization may affect consumers’ trust in online retailers because the higher level of personalization customers perceive, the more likely they would believe reviews reflect experiences of a real customer instead of fake reviews manipulated by retailers, thus the more likely they would trust reviewers and then retailers. One critical difference between word-of-mouth and ads is word-of-mouth lets different opinions heard whereas ads only promote good attributes of products. Personalization allows diverse opinions about a product heard, which may make information about a product more credible.

Playfulness. Playfulness is considered as one important dimension of interactivity (Ha & James, 1998) and one goal of communication (Stephenson, 1967). Playfulness plays a critical role in different interaction occasions in human being’s history such as interacting with an object (e.g., toys) or with other people in a game. In the mediated communication,
playfulness was found to be positively related to website popularity (Chen & Yen, 2004).

Prior constructs focus on the simulation of communicating with persons. Playfulness emphasizes the communication experience itself and the emotional aspect (Ha & James, 1998). Communication is a continuum in which playfulness increases people’s interests in involving in the interaction. The popularity of online games also reflects the role of playfulness. Users spend hours on online games whereas minutes on certain web pages. The game players’ satisfaction is called “flow experiences”. Flow experiences describe that players are so engaged in the activity that they ignore the world around them or the time (Csikszentmihalyi, 1975). It is the concentration, curiosity, and enjoyment created by the interaction experiences that make players engage in online games continuously. Playfulness enables users to actively and continuously participate in the interaction or communication.

In online shopping context, playfulness is important, especially for customers with hedonic motivations of online shopping. Online customers make a purchase with experiential and instrumental goals. Customers with experiential goals and hedonic motivations pursue enjoyment, entertainment, and emotional arousal in the shopping process. Playfulness plays a key role in their shopping experiences (Hirschman, 1983). On the other hand, customers with instrumental goals and utilitarian motivations are task-driven (Batra & Ahtola, 1990). They focus on the usefulness of product reviews or if they can finish shopping efficiently.
In the product review context, some product reviews are humorous, vivid, and hilarious whereas others are uninteresting. Researchers suggest both the products as external rewards and the enjoyable shopping experiences as the internal rewards lead to the customers’ satisfaction (Jarvenpaa & Todd, 1996). When consumers read the product reviews, they have both the cognitive perception such as the information quality and the emotional perception of the overall experiences when reading product reviews. In addition, some hilarious product reviews are shared by customers on social media such as one product on Amazon called Haribo Sugarless Gummy Bears (Davis, 2014). In this case, consumers are actively involved in the product review use process. They take actions of sharing the product review with friends on social media instead of reading them passively like reading news on newspapers. The following examples are some humorous product reviews on Amazon (Figure 2.6) and Tmall (Figure 2.7). There are more interesting textual reviews on Amazon while humorous picture reviews on Tmall.
Figure 2.6 Interesting reviews of Gummy Bears on Amazon

From a review titled: “Just don't. Unless it's a gift for someone you hate.”

“Some came out of me felt like someone tried to funnel Niagara Falls through a coffee straw. I swear my sphincters were screaming. It felt like my delicate stellate was a gaping mere projectile vomiting a tonnel of liquid. Flammable. NARALM.”

From a review titled: “Fully weaponized Gummy Bears”

“The cramping started about an hour later, and soon enough I was as bloated as a balloon in Mary’s Thanksgiving Day Parade. When the rumbling started I sprinted down the hallway and made it to the bathroom just in time for the Four Horsemen of the Apocalypse to stampede from my backside, yelling waste to my home’s septic system AND my will to live. After three hours of a pelvis-shaking Gummy Bear assault, I was so puffy and weak, 1 was sure I had any bones left. I cursed Haribo with the little strength I could muster.”

From a review titled: “You dont understand.”

“I was glued to the toilet seat. Streaks oflife burst from my colon. When I wasn’t experiencing Satori fury escalating from my rear, I was laying in the fetal position on my bathroom floor, sobbing and asking for forgiveness. In a 280 pound man. I Was. Sobbing.

When it was finally over, I couldn’t move. I crawled onto the floor one last time and sat, motionless, until my dehydration finally required that I drink water. The other reviews are perfectly accurate. This is absolutely, 100% true.

Eat two at a time. Three if you’re brave. But for the love of God and all things on this earth, DO NOT EAT ANY MORE.”

Figure 2.7 Interesting product reviews on Tmall
The direct relationship between playfulness and trust in retailers has not been examined empirically. Playfulness is found to be positively related to the intention to use a website and the attitude toward a website (Ahn, Ryu, & Han, 2007). The researcher in this study assumes the playfulness of product review use would enhance consumers’ trust in retailers. Customers make online purchases for utilitarian or hedonic motivations. Customers who are open-minded, extravert, emotional are more likely to shop for hedonic motivations. Those who are conscientious are more likely to shop for utilitarian motivations (Chen & Lee, 2008). Consumers with low involvement on a website would assess the information relying on heuristic cues such as websites’ attractiveness. Consumers with high involvement would examine information quality of product reviews more carefully with intense cognitive efforts (Zhou, 2012). Hence, playfulness would enhance customers’ trust because playfulness reflects a consumer’s positive emotional perception towards the site or in the interactive experience, especially for customers who make online purchases for hedonic motivations and involve on a website at low levels. Also, a playful experience makes customers more relaxed and less suspicious of the retailers.

Also, reviews about different types of products affect customers’ perceptions. It is difficult for consumers to evaluate experience products’ (e.g., music, wine, food) attributes and qualities prior to purchases. Subjective attitudes of products affect customers’ decisions. Consumers are more likely to purchase experience products for hedonic motivations. Product
reviews of experience products are more subjective and idiosyncratic than that of search products. Hence, playfulness may enhance customers’ trust by improving their satisfaction and positive attitudes, especially for experience products. Customers’ satisfaction is positively related to their trust (Ranaweera, & Prabhu, 2003).

**Why Not Other Dimensions**

Why does the researcher not choose other interactivity dimensions in this study? The main reason that multimodality not included is social presence is related to media richness. Multimodality focuses on the modes used to transmit messages such as textual, aural, visual modes. Media Richness Theory argues the richer a medium is or the more modes used in communication, the higher ability to communicate complex messages (Daft & Lengel, 1986). Multimodality is not included as one dimension of interactivity in order to avoid the multicollinearity issue. Another reason is social presence is more important than multimodality in product review use experiences. If a consumer read an image or video review with a human face or body, the effect of social presence may be stronger than multimodality. If a consumer read an image review of a product posted by a reviewer, the essential difference between this image and the product image posted by retailers is the reviewer. An image review reflects actual attributes of products because it is created by customers. Therefore, social presence is more important for consumers’ perceptions of product review use than multimodality.
User control refers to the extent to which users can control over the information exchange (Jensen, 1998). User control is more important for the mediated environment such as online games or online forums since users have more options and controls. For example, gamers have numerous options to control characters and affect performances and outcomes such as choosing roles, roads, team members, outfits, etc. Connectedness refers to the extent to which users can access other resources and information (Ha and James, 1998). A typical example of increasing connectedness is hypertexts that allow users to access more information or visit other pages. Hypertexts are not commonly used by consumers on product review pages. Responsiveness refers to the speed of response time on a website. It is more critical for the interactive communication such as contacting customer services instead of product reviews use.

**Social Inequality**

**Social Inequality and Trust**

Social inequality exists when resources are distributed unequally in a society. The recourses include economic resources such as income or financial services, social and political rights, social status, public goods such as education or health care, housing, or transportation, etc. (Sernau, 2013). Perceived social inequality in this study includes perceived income inequality, perceived opportunity inequality, perceived education inequality, perceived health inequality, and perceived inequality of opinion expression. There
is an interrelationship among those dimensions. Income or opportunity inequality may lead to education and health inequality.

Social inequality decreases people’s social trust (e.g., Costa & Kahn, 2003; Hero, 2003; Paxton, 2002), which may decrease their trust in online retailers. Social trust, also called generalized trust, refers to the extent to which people perceive others are generally trustworthy. In an unequal society, people are categorized into different groups based on resources they obtain. The lower the social inequality exists in a society, the greater similarities there can be among people. Thus, the more cohesion, cooperation, and trust exist among people. In contrast, the higher the social inequality, the greater the dissimilarities among people. Hence, the more suspicion and distrust may exist among people.

Social inequality exerts an impact on social mobility (Collins, 1993). Social mobility refers to the movement of people in different social strata. In a society with low social inequality, social mobility is large. People from low strata can move to high strata through their effort to reduce the difference among people across different strata or groups. In a society with high social inequality, social mobility is small. People from low strata and their later generations are more likely to stay in the same strata and live in poverty no matter how hard they work. On the other hand, people and their later generations from high strata would enjoy their luxurious life and high status. Low-status people may feel unfair and have a sense
of envy or hostility to those who obtain more resources with little effort, which may decrease
their trust in others’ competence and benevolence.

Customers with a lower level of social trust may be less trusting towards online
retailers because they are less likely to trust all other people generally. Social trust is a
connection across groups, religions, races, etc. Its target is general others instead of
acquaintances. It is different from the particularized trust that refers to trust in a particular
individual or group (Rothstein & Uslaner, 2005). Social equality, wealth, great government,
and ethnic homogeneity can increase social trust (Delhey & Newton, 2005). Social inequality
is the strongest predictor of social trust (Uslaner, 2002). Countries with high economic
equality also are ranked high on social trust such as the Nordic countries, the Netherlands,
and Canada. On the other hand, countries with low economic equality are also ranked low on
social trust such as Brazil and Mexico. Customers in a society with large social inequality
may have a lower level of social trust, so they are less trusting towards online retailers.

Income inequality is found to be negatively related to social trust that refers to the
extent to which people trust most people (e.g., Elgar, 2010; Lei, & Vesely, 2010; Smith,
2011). China’s philosopher Confucius proposes the cause of social distress is the unequal
distribution rather than same little resources received by each person. The larger income
inequality, the more the dissimilarity among people in different income classes is. Conflicts
and contradictions are more likely to exist in the society with higher income inequality.
Hence, the overall trust is decreased. Lei and Vesely (2010) conducted a laboratory experiment to examine the relationship between income inequality and trust. They have found rich subjects with more endowment trust their in-group members more than out-group members when income inequality exists.

Some studies report a negative relationship between income inequality and interpersonal trust that is the extent to which people would like to cooperate with each other for mutual benefits (e.g., Elgar, 2010). Some researchers also examine the relationship between income inequality and economics. They have found the wealthier the society is, the higher the social trust exists among people (e.g., Banfield, 1958; Bjørnskov, 2007). People’s material need is met in a wealthy country, so they are more likely to take risks and cooperate with other people. It is less necessary for them to take advantages of others. Hence, they would trust more in other people. Large income inequality also leads to other social problems. There is a negative relationship between income inequality and health expenditures, life expectancy, and social cohesion. Also, the greater the income inequality, the higher mortality is (e.g., Elgar, 2010; Marmot, & Wilkinson, 2005; Pickett, & Wilkinson, 2009).

Opportunity inequality may be correlated with income or regional inequality. Equality of opportunities is an important factor in sociology. A person’s outcome (income, education, occupation, social mobility, welfare, etc.) is depending on individuals’ effort and
circumstances (Roemer, 1993; 1998). Individuals’ effort refers to factors under control such as time invested in work, personal choices, and investment in human capital. Human capital is a collection of knowledge and abilities that can be improved by training, education, and investment such as skills, creativity, experiences, intelligence, etc. Circumstances refer to factors beyond personal control such as race, ethnicity, and family background, etc. Social mobility requires compensating individuals for various circumstances such as race, ethnicity, and family background, etc. (Rawls, 1971; Sen, 1980; 1985). In a society with equal opportunities, individuals could achieve the same level of outcomes through the same level of efforts no matter what circumstances they are from.

The opportunity inequality may be negatively related to trust. Previous studies have shown a negative relationship between trust and income inequality, education inequality, and diversity of ethnicity (Bjørnskov, 2006). Income inequality and opportunity inequality are highly correlated (Corak, 2013). Therefore, opportunity inequality may lead to income inequality, thus may decrease people’s trust.

People from different racial or ethnic groups have different social trust (e.g., Alesina & La Ferrara, 2002; Taylor, Funk, & Clark, 2007). Racial heterogeneity is negatively related to trust (Alesina & La Ferrara, 2002). Research has reported minority people are less trusting than majority people (Taylor et al., 2007). The percentage of Whites (41%) who are highly trusting is much higher than Blacks (20%) and Latinos (12%). The percentage of Whites
(32%) who are low trusting trust is lower than Blacks (61%) and Latinos (53). African Americans perceive a higher level of racism than Whites in the U.S. They also have less trust in healthcare services than Whites (Adegbebo, Tomar, & Logan, 2006). Scholars argue perceptions and experiences of racism may explain Black’s lower trust in healthcare than Whites. Empirical studies also confirm this argument. Blacks’ perceptions of racism and distrust of whites reduce their trust in healthcare providers and their satisfaction with the healthcare services (Benkert, Peters, Clark, & Keves-Foster, 2006).

Social Inequality in the U.S.

**Race/ethnicity inequality.** Ethnicity inequality or racial discrimination is a more severe problem in the U.S. than China. The racial or ethnic groups are more diverse in the U.S. than China. According to the U.S. Census Bureau (2015), Whites accounted for 61.6% of the U.S. population compared with 17.6% of Hispanics or Latinos, 13.3% of Blacks, 5.6% of Asians, and 1.9% of others. Most African Americans in the U.S. are the descendants of black African slaves.

Race indicates not only physical traits but also values, meanings, distribution of resources, and even discriminations the subordinate groups may receive. Although the slavery ended in 1865 when the Civil War was over (Franklin & Moss, 2011), minorities such as African-Americans still suffer social inequality including inequality of social-economic status, employment, health care, etc. A lot of minorities have experiences of racial
discriminations in life or online such as on social media (Hanasono, Brojakowski, Yang, 2014). There are 40% of Blacks who believe it is more difficult for them to be successful due to their race compared with 5% of Whites and 20% of Hispanics. About one third of Whites report their race or ethnicity makes it easier for them to succeed in life (Patten, 2016).

Important factors for racial inequality include social-economic statuses, social capital, and residential segregations (Bower, Thorpe, Rohde, & Gaskin, 2014; Thomas, & Moye, 2015). They are interrelated with each other. Low social-economic status may lead to worse educational attainments, living environment, and social relationships. Residential segregation and discrimination make minorities to be more likely to live in poverty and stressful environments and be exposed to social conflicts and limited resources and social networks, which may decrease job opportunities. Disparities of job opportunities and educational attainments may, in turn, lead to income inequality among different racial groups. The income inequality may lead to limited health care resources and the deterioration of health statuses (Bower et al., 2014).

**Income inequality.** The race or ethnicity accounts more variances of income inequality in the U.S than in China (Xie & Zhou, 2014). The White-Black gap has been narrowed since mid-1970s. Blacks were four times to live in poverty compared to Whites (Pew Research Center, 2016). However, the income inequality still cannot be ignored. Blacks (26.2%) and Hispanics (23.6%) are more likely to live in poverty than Whites (10.1%) and
Asians (12.0%) (Center for Disease Control and Prevention, 2015a). The net household wealth of White Americans is almost ten times of that of Black and Hispanic Americans from 2007 to 2013 (Kochhar & Fry, 2014). The average hourly earnings of Blacks were 71% of Whites in 2015. White men earned $21 hourly, which was much higher than Black and Hispanic men ($15) and slightly lower than Asian men ($24). The differences of education, unfair treatment at workplaces, occupation, and industries play a key role in income inequality among difference racial groups. The low education level makes some minorities to do low-skilled and low-paid jobs. There are more Whites (36%) and Asians (53%) who have a bachelor’s degree or more education than Blacks (23%) and Hispanics (15%). More Blacks (21%) report they have been treated unfairly compared with Whites (4%) in hiring, promotion, or salary due to their race (Patten, 2016).

**Employment inequality.** Racial inequality exists in the job markets in the U.S. White people’s employment rate is higher than the minorities while their unemployment rate is lower than the minorities. According to Bureau of Labor Statistics (2017a), the employment rate of Whites (60.2%) was higher than that of Blacks or African Americans (56.4%) and Asians (60.9%) in 2016. The unemployment rate of Blacks or African Americans (8.4%) almost doubled that of Whites (4.3%). In terms of occupations, Whites (40%) were more likely to work with occupations with high social statuses and prestige than Blacks or African Americans (30.1%) and Hispanics (22%) such as management, business, and financial
operations. Blacks or African Americans (9.5%) and Hispanics (8.1%) were more likely to work with occupations with low social statuses and prestige than Whites (5.7%) such as transportation and material moving occupations (Bureau of Labor Statistics, 2017b).

Scholars provide several explanations for employment inequality of different racial groups. A resume with White sounding names could yield more callbacks than that with African-American sounding names (National Bureau of Economic Research, 2017). More than half (64%) of Blacks perceive they are treated unfairly at work compared with 38% of Hispanics and 22% of Whites. More Blacks (21%) reported they have been treated unfairly compared with Whites (4%) in hiring, promotion, or salary due to their race (Patten, 2016). Employers’ job segregation is another reason for employment inequality (Thomas & Moye, 2015). Employers may allocate White people to certain jobs whereas Blacks to other jobs based on the perception of proportions of racial differences for different jobs. This allocation bias is prominent for service jobs. Besides, employment through social networks also explains the employment inequality (Smith, McPherson, & Smith-Lovin, 2014). White people are more likely to refer their White friends or families to their companies or organizations whereas Black people may refer their Black friends or families, which strengthens the employment disparity. Furthermore, Labor Unions dominated by different racial groups also affect employment inequality (Lichtenstein, 2013).

**Educational inequality.** The educational inequality exists not only in academic
outcomes, resource distributions, and more importantly opportunities. The educational gap for higher education across different racial groups has widened over time. It is reported 10% of Whites had a bachelor’s degree in 1964 compared with 4% of Blacks. However, college completion rates among Whites was 36% in 2015, which was much higher than Blacks (23%) and Hispanics (15%) and lower than Asians (53%). Students with different races obtain different education achievements. Mattern and Patterson (2013) conducted a study on more than 400,000 college students and found White students had higher grade in high school GPA, SAT scores, and college GPA than Black and Hispanic students. One study sampling 1,181 minority students has found minority students’ perceptions of academic futility is positively related to how frequently they are discriminated by teachers due to their race or ethnicity (D’hondt, Eccles, Van Houtte, & Stevens, 2016). Parents’ social economic status has a profound impact on children’s education. Children from Non-Hispanic Black (37.3%) and Hispanic family (31.9%) are more likely to live in poverty (Center for Disease Control and Prevention, 2015a). Race segregation prevails in American society, even in large cities such as New York, Los Angeles, and San Francisco. A lot of minority children live in communities where schools have poor academic performances and fewer resources, which may affect their academic achievements and developments negatively (Orfield, 2013).

**Health inequality.** Inequality also exists in health care due to social-economic statuses of different racial groups. World Health Organization claims health inequality is not
only the differences in health statuses but also in the distribution of health resources among different populations or groups deriving from their social-economic conditions (World Health Organization, 2017). According to Center for Disease Control and Prevention (2015a), there are more Whites (39.8%) who assess their health statuses as “excellent” compared with Hispanics (32.5%) and Blacks (33.8%). There are more Hispanics (12.7%) and Blacks (13.6%) consider their health statuses as “fair” or “poor” than Whites (8.0%). Whites live longer than Blacks among both males (76.5 vs. 72.0) and females (81.1 vs. 78.1) (Center for Disease Control and Prevention, 2015b). The life expectancy gap between Whites and Blacks has been narrowed since 1980. The obesity rate is also higher among Hispanics (21.9%) and Blacks (19.5%) than Whites (14.7%) among children aged 2-19. The hypertension rate among Blacks (43%) is higher than Whites (29%) among adults aged 20 and over. Whites (39%) are also more likely to receive influenza vaccination than Hispanics (27.9%) and Blacks (26%). In terms of the health insurance, the medical uninsured rate of Hispanics (21.9%) and Blacks (11.3%) is much higher than that of Whites (7.5%) among people under age 65. Even among people who live in poverty, Whites (13.7%) are also more likely to have health insurance than Blacks (16.1%) and Hispanics (31.5).

Social Inequality in China

Income inequality. Income and regional inequality are two important reasons for social inequality in China. China becomes the country with the highest income inequality.
Gini coefficient (also known as the Gini index or Gini ratio) is a widely accepted measure of income inequality. Gini coefficient varies between 0 and 1 shows income is equally distributed, while 1 represents complete inequality. Gini coefficient that is higher than 0.50 is considered severe disparity. Gini coefficient in the U.S. was reported to be 0.45 in 2015. Gini coefficient in China grew from 0.3 in 1980 when China’s economic reform and opening commenced to 0.73 in 2015, which was 62% higher than that of the U.S. (Bei Jing University, 2016).

**Regional inequality.** Regional inequality is a more pressing problem than racial or ethnicity inequality in China. There is an interrelationship between region inequality and income inequality, opportunity inequality, and social conflict. Regional income gap contributes to more variance of the income inequality in China than in the U.S. The most important reason that leads to the rapid growth of the income inequality in China is the economic policy of China’s government (Xie & Zhou, 2014). In 1978, China carried out reform and opening policies that encouraged a few of people to become rich first and then to help other people. Additionally, China’s government offers more supports for urban areas over rural areas and for the coastal regions over inland regions. As a result, the regional income gap is greater in China than that in the U.S. The regional income gap contributes to 12% of the income inequality in China, while it only accounts for 2% of in the U.S. (Xie & Zhou, 2014). The rural-urban gap accounts for 10% of the income inequality in China, while
it contributes little in the U.S. In China, the average personal annual salary in Bei Jing, the
capital of China, was RMB 77,560 (US$ 11,752) in 2015, which was 36% higher than that in
Xin Jiang province (RMB 49, 591 or US$7,524). (National Bureau of Statistics of China,
2016).

Rural-urban gaps and socioeconomic backgrounds are the two most important aspects
of opportunity inequality in China (e.g., Hannum, 2005; Qian & Smyt, 2008; Whyte, 2010;
Yeung, 2013). The rural-urban gap in China is so large that people in different areas obtain
different opportunities. The regional inequality is due to many reasons such as different
income, resources, political and social environment, life styles, and beliefs. The key reason
for the rural-urban gap is the economic gap and the unique household (hukou) registration
system in China. All the household registration is divided into agricultural and non-
aricultural residences. The Hukou system restricts rural people to live in rural areas and
limits their employment, educational, medical, and housing opportunities. 54% of Chinese
people live in urban areas (National Bureau of Statistics of China, 2013), but only 28% of
them are registered as urban residents (Tsinghua University Center for Economic Statistics,
2013).

As a result, some urban citizens have a sense of superiority while some rural people
feel they are inferior. Regional discrimination also exists in different cities or areas besides
the rural-urban gap. For example, people from metropolis such as Beijing and Shanghai may
look down on people from small cities. Besides, people in China have some stereotypes on individuals from different areas. For example, some folk adages are popular in China such as “people from Guangdong believe people from other areas are poor” or “people from Shanghai believe people from other areas are the countrymen” (Huang & Yao, 2006; Ren Min Daily, 2014).

**Educational and opportunity inequality.** Great educational inequality exists between rural and urban areas (Qian & Smyth, 2008). Higher education is the most important way for rural people to become urban residents (Wu & Treiman, 2004). China introduced Chinese Compulsory Education Law since 1986 that required all people with appropriate age should accept nine year’s compulsory education including primary and junior high school education. Chinese Education Law of 1995 emphasized educational opportunities should be equal for all people regardless of sex, ethnicities, races, religions, and occupations (Ministry of Education, 1995). However, a vicious circle exists for the rural residents. Rural residents are usually educated in rural areas. It is difficult for them to obtain admissions of colleges or a job in urban areas due to the poor quality of rural education. Rural residents cannot be registered as urban residents based on China’s household (hukou) registration system. Even though parents who live in urban areas, their children have to go back to rural areas and be educated if parents are not registered as urban residents. There were 54% of urban residents who entered colleges whereas only 2% of rural people did that (Zhang, Li, & Xue, 2015).
Among all junior high school students, urban residents accounted for 80% whereas rural people accounted for only 20%. Among all the primary students, rural areas accounted for only 38% while those from urban areas accounted for 62%. (National Education and Development Research Center, 2014).

Educational inequality in different regions also exists in College Entrance Examination (Gao Kao). The acceptance rate at different universities is distinctive for students in different areas. Students can only attend College Entrance Examination in the regions where they are registered as residents. It is much more challenging for students in regions such as He Nan or Jiang Su to enter prestigious universities than those in Beijing or Shang Hai. The acceptance rate in the metropolis such as Bei Jing or Shang Hai is much higher than other areas such as Jiang Su or He Nan. The acceptance rate is determined based on different regions every year. The acceptance rate of the top two universities, Tsinghua and Peking universities, was nine per thousand in Shang Hai whereas only one per thousand in He Nan (Figure 2.8; The Atlantic, 2013). There are more educational resources distributed in the metropolis. There are more universities with great reputations called “211 Universities” in some regions such as Beijing and Shang Hai than other regions such as Qing Hai and Tibet. Students obtain offers of universities in their cities or provinces where they are registered as residents more easily. In terms of employment opportunities, it is difficult for rural people to obtain a decent job in cities due to their low educational level. They cannot become urban
residents without a legal job in cities. Thus, most rural residents and their children would still live, are educated, and received medical services in rural areas.

Figure 2.8 The acceptance rate of College Entrance Examination in different cities in China

Race/ethnicity inequality. The effect of race or ethnicity on social inequality in

China is so small that it is ignored by many studies (Yanbi & Minhui, 2010). Race or ethnicity of the family head’s accounts more variance of total income inequality in the U.S than in China (Xie & Zhou, 2014). There are 56 ethnic groups in China. Han ethnic group is the dominant group, accounting for 91.6% of Chinese population. People of other ethnic groups only account for 9.4% of the population (National Statistical Bureau, 2010). Many minorities are assimilated by Han, the majority ethnicity group. Actually, minority students obtain extra credits when they attend College Entrance Examination and apply for programs at universities, which increases opportunities to obtain good offers. Hence, race/ethnicity inequality exerts little impact on social inequality in China.
Culture

Culture and WOM

Culture is found to exert an impact on people’s perceptions on WOM. Doran (2002) found Chinese consumers are more likely to depend on reference groups’ opinions to make decisions than Americans. American customers prefer making decisions by their own experiences and knowledge than Chinese ones. Dobele et al. (2007) argue culture may lead to different attitudes towards the same information. The messages American consumers perceive as positive ones may be negative for Chinese counterparts. Multiple Pathway Anchoring and Adjustment model (MPAA, Cohen, & Reed, 2006) suggests that people form attitudes or perceptions by multiple routes to guide their behaviors, anchoring on either knowledge or information stored in memory previously (i.e., primacy effect) or information readily available in the context (i.e., recency effect). Christodoulides, Michaelidou, and Argyriou (2012) found Chinese consumers prefer forming attitudes by recent effect than UK consumers. Chinese consumers have fewer purchase intentions when they are exposed to positive e-WOM, followed by negative e-WOM. On the other hand, the negative e-WOM has greater impacts on UK consumers than Chinese ones because their purchase intentions do not increase when they are exposed to negative e-WOM, followed by positive e-WOM.

Consumers’ trust varies across cultures (Gefen, 2000). Hofstede (1980) is the most widely cited source of cultural difference model. Two cultural factors including
individualism/collectivism and power distance are investigated in this study because they are the most important differences between China and the U.S. and reflect different dimensions of culture. Individualism/collectivism reflects self-concept and personality. Power distance reflects hierarchical structures in a family or social class (Clark, 1990).

**Individualism/Collectivism**

Individualism/collectivism are two important dimensions of Hofstede’s (1980) cultural model. Individualism assumes individuals are independent and autonomous, which is the core of individualism. Collectivism assumes individuals are members of groups and mutual obligations exist among individuals (Oyserman, Coon, & Kemmelmeier, 2002). People in collectivism culture identify themselves as one part of the society instead of separating them with rest of the whole society (Taylor, Miracle, & Wilson, 1997). They emphasize that the value of the whole group, society, or country is more important than that of individuals. In terms of self-identity, individualism values different opinions and emphasizes individuals are unique and (Triandis, 1995). Collectivism believes the group membership plays an essential role in self-identity (Hofstede, 1980). In terms of personal goals and life satisfaction, individualism values personal success and accomplishments over groups’ goals and success. Individualists emphasize the value of individuals and promote the satisfaction of individuals’ demands over groups’ values and satisfactions. However, in collectivism, social or group goals are more important than individuals’ goals. Sometimes, in
order to accomplish group goals, individuals need to sacrifice their own personal goals (Oyserman, 1993; Triandis, 1995).

For rights and duties, individualism values personal rights over obligations whereas collectivism emphasizes group or social obligations over personal rights (Hofstede, 1980). For expression, individualism encourages emotional expressions while collectivism restricts emotional expressions (Kim, 1994). In terms of judgment and reasoning, individualists are personal-oriented instead of context-driven while collectivists believe social contexts need to be considered (Choi, Nisbett, & Norenzayan, 1999). In terms of relationships, individualists believe relationships are impermanent and they change as personal goals shift. On the other hand, collectivists believe relationships and boundaries between in-groups and outgroups are stable (Kim, 1994). In terms of behaviors, individualists prefer acting independently and value distinctions whereas collectivists are more likely to follow social norms and behave similarly as their peers or group members (Hofstede, 1984).

Hofstede (1983) suggested the United States has the highest individualism score (91) in the world whereas China that has a much low individualism score (20) is a high collectivism country. Hofstede (1983)’s culture model has been widely used in cultural studies. However, many studies challenge Hofstede (1983)’s model. Matsumoto, Weissman, Preston, Brown and Kupperbusch (1997) compared the culture differences between Japan and the U.S. in terms of values about families, friends, colleagues, and strangers. Their results
turned out for values and behaviors towards families and friends, the U.S. was more
collectivistic than Japan. Differences exist across ethnic groups in the U.S. European
Americans were less collectivistic than African, Asian, and Hispanic Americans in terms of
values of families and friends. African Americans were less collectivistic than European,
Asian, and Hispanic Americans in terms of values of colleagues and strangers (Matsumoto et
al., 1997). Yamagishi (1988) compared the cooperation behaviors of the U.S. and Japanese
students in a prisoner’s dilemma setting. The results showed when the selfish behavior was
not punished, the U.S. participants were more likely to cooperate than the Japanese
participants.

On the other hand, China is experiencing changes from collectivism to individualism
due to the tremendous social-economic development. Scholars suggest the growth of wealth
and economy makes the country to be more individualistic since people will be less
dependent on groups (Hofstede, 2001; Triandis, 1995). Another reason is the one-child policy
that restricts one Chinese family can only have one child. The one-child policy was
implemented since 1978 and ended in 2015. After 2015, one Chinese family can have two
also called Chinese Generation Y, refers to individuals who were born between 1980 and
1989. It is the first generation who was born after the one-child policy. Post-80s Generation
receives too much love from parents, enjoys the material abundance, and never experiences
the material scarcity that their parents have experienced (Cao, 2009). Many values of Post-80s Generation are similar as that of Generation Y in the U.S. (Moore, 2005). Post-80s Generation is independent, aggressive, and self-interested, and prefer rich material life and expensive products (Stanat, 2005). Chinese young people pursue their own happiness and self-satisfaction more than their parents (McEwen, Fang, Zhang, & Burkholder, 2006; Steele & Lynch, 2013). Chinese young online consumers tend to purchase online to meet their demands for self-satisfaction (Xiaogang, 2004). Thus, it is unknown if the individualism level of the U.S. consumers is higher than that of Chinese ones nowadays.

Trust differs in collectivism and individualism culture. Collectivists are found to be less trusting than individualists (Van Lange, et al., 2017). Chinese consumers are more risk avoidance and have less intention to buy online than the U.S. consumers (Teo, Wang & Leong, 2004). Van Lange, et al. (2017) have found that collectivists such as Chinese consumers are less trusting and more risk avoidance than individualists such as U.S. consumers. They argue collectivists trust their in-group members such as families or friends more than out-group members such as retailers. Allik and Realo (2004) report individualists who are autonomous actually rely more on the society. Compared to collectivists, individualists who are independent, prefer living alone, and have more personal accomplishments are more likely to trust other people, cooperate with others, and maintain strong social networks. Wagner (1995) argues individuals who are independent and more
self-reliant are less likely to cooperate with others whereas those who are interdependent on
groups and less self-reliant are more likely to cooperate with others. However, when the
identifiability is high in a group, individualists are more prone to cooperating with others than
collectivists (Wagner, 1995). The identifiability refers to the level to which other members
can observe and evaluate a member’s behaviors in a group (Szymanski & Harkins, 1987).

However, some studies have different results (e.g., Allik & Realo, 2004). There may
be more risks involving in online shopping in China due to the existence of counterfeits and
the lack of regulation protections and guarantees of product warranty and return. However,
Chinese consumers pay more attention to cost effectiveness or economic aspects probably
because of their lower economic status (Liao, Proctor, & Salvendy, 2009). They are sensitive
to price and do not mind trying new online retailers when they are offered a lower price or
better deals (Chen, Zhang, Yuan, & Huang, 2007). Another reason is the “cushion” effect of
family members in collectivism culture. In China, if individuals face some catastrophic loss,
family members will step in to help them, which shares and reduces individuals’ risks. In the
U.S., individuals need to face the consequence of taking risks by themselves, so they may be
more risk-averse (Weber & Hsee, 1998). Therefore, Chinese consumers might take risks to
shop online in order to purchase low-price products. However, preference of trying new
retailers and seeking risks does not mean Chinese consumers are more trusting in online
shopping or online retailers than the U.S. consumers. It is possible they take more risks to
buy online due to the better price and cost effectiveness of online products, whereas instead trust less in online retailers simultaneously. Thus, it is worth discussing that if individualists or collectivists are more likely to trust online retailers.

People in collectivism culture may be more likely to depend on WOM to make purchase decisions compared to individualists (Doran, 2002). Collectivists are also more likely to think or behave similarly than individualists due to the social pressure (Yaveroglu & Donthu, 2002). People in collectivism culture trust in-group members more than out-group members. Customers who post reviews online are strangers. Thus, collectivists may have a lower level of trust in online reviewers than individualists. Online retailers who pursue profit maximization are also out-group members for customers. Chinese customers may have lower trust in online retailers than the U.S. ones due to Chinese customers’ higher level of uncertainty avoidance and preference of trusting in-group members.

Doney et al. (1998) proposed people built trust by five different processes including prediction (previous experiences), transference (e.g., word-of-mouth), calculation (assess of gain and loss), intentionality (trustees’ motives), and capability process (trustees’ ability). Individualists are more likely to form trust based on a calculation or capability process than collectivists (Doney et al., 1998). Individualists evaluate trustees’ individual performances, expertise, and knowledge instead of the group’s goals or achievements. Individualists are more likely to assess third-party retailers as unique parties and separate one third-party
retailer with others. They may evaluate each third-party retailers’ product reviews, website designs, shipping or returning policies, or third-party certifications, etc. They may believe third-party retailers are also able to provide high-quality products instead of viewing them as a group that provides low-quality products. Thus, individualism may increase consumers’ trust in third-party retailers.

Collectivists are more likely to build trust depending on transference process than individualists (Doney et al., 1998). In transference process, trustors (consumers) transfer trust from a familiar entity to an unknown one (online retailers). Individuals are tightly knitted and strong interpersonal ties exist in the collectivism culture whereas individuals are loosely connected in the individualism culture. Collectivists trust in-group members more than out-group members. Trust in in-group members is easier to transfer to another in-group member in the collectivism culture than the individualism culture. Opportunistic behaviors are minimized due to the social sanction (Lindsay, 1983). Third-party seals can help build trust (Kimery & McCord, 2002). Amazon and Tmall are the two largest e-commerce sites in the U.S. and China, consumers make a lot of purchases on the two sites and are familiar with them. Consumers’ previous purchase experiences develop the relationship and their trust in Amazon and Tmall. Compared to individualists, collectivists are more likely to consider Amazon or Tmall and third-party retailers fulfilled by them as one integrated group and transfer their trust in the platform to retailers fulfilled by the platform. Also, collectivists
prefer building trust based on prediction process. They may expect third-party retailers fulfilled by Amazon/Tmall will not have opportunistic behaviors based on their previous shopping experiences on Amazon/Tmall.

**Power Distance**

Power distance refers to the extent to which individuals accept that power is distributed unequally (Hofstede, 1984). The social boundaries are prominent among people with different social statuses such as the rich and the poor. Reputation and wealth are important in high power distance culture. People in a high power distance culture pursue power as self-satisfaction and behave according to their social class. On the other hand, class differences and social status are not so important in low power distance culture. People in low power distance culture are less socially conscious and have less awareness of social hierarchy. It is reasonable that people in a high power distance culture are more likely to prefer famous brands than those in low power distance culture because famous brands are the symbol of power and reputation. The compensatory consumption theory suggests consumers use famous brands to compensate for their low social status (Kim & Zhang, 2014). Scholars have reported minorities in the U.S. are more likely to purchase products with famous brands than the White majority (Charles, Hurst, & Roussanov, 2009).

China is a country with a high power distance score (84) while the U.S. is a low power distance country (40) (Hofstede, 1983). Chinese people prefer status brands than
Americans (Kim & Zhang, 2014). Status brands are one subcategory of famous brands that reflect high social status such as Louis Vuitton, BMW, etc. There is a positive relationship between the power distance belief and the preference of luxury brands.

People in high power distance culture are more likely to build trust by capability, calculative, and prediction process (Doney et al., 1998). People in high power distance culture value experts and authorities more than those in low power distance culture. Thus, they may believe famous brands have greater expertise and capability to provide high-quality products. Besides, in the calculative process, people in high power distance culture may consider that the cost of opportunistic behaviors and the loss of bad reputation for famous brands is high than that of non-famous brands. Also, people in high power distance culture are more likely to believe famous brands are more predictable depending on their prior performances. Because the power distance is higher in China than in the U.S. (Hofstede, 1983), power distance’s effect on trust in famous brands may be stronger in China than the U.S. People in high-power distance culture are more likely to trust individuals or organizations who have more expertise and are more authoritative than those in low power-distance culture. Retailers with famous brands or are guaranteed by the shopping platforms are more trustworthy for individuals from high-power distance culture. Also, trust worthy online customers are who have more helpful reviews recognized by other shoppers, higher review rankings, and higher membership levels (e.g., T4 on Tmall).
E-commerce in the U.S. and China

Current State

In terms of differences, e-commerce in the U.S. developed earlier than that in China. E-commerce in the U.S. started growing in the 1990s (China’s B2B Research Center, 2009). In 1995, two giants including Amazon and eBay were launched. Dell and Cisco began to sell online. Two influential search engines Yahoo and Google debuted in 1995 and 1998 respectively, which considerably improved web directories and information achievements in e-commerce. On the other hand, from 1997 to 1999, China’s earliest group of e-commerce companies started to develop such as 8848, Alibaba, DangDang, etc. From 2000 to 2002, Chinese e-commerce experienced a frost period due to the devastating effect of the Internet bubble. Chinese e-commerce boomed after 2000. Alibaba, the current largest e-commerce company, survived at the most difficult time and became profitable since 2001. From 2003 to 2005, a lot of e-commerce companies recovered. In 2003, Alibaba built its Customer-to-Customer site Taobao and also developed its online payment system Alipay. Alipay changes China’s e-commerce market dramatically in the future. Competition becomes more and more intense nowadays. Many giants try to get a slice of the big cake.

The e-commerce market structure in the two countries is different. Business-to-Customers (B2C) refers to companies that sell products or offer services to end-consumers. Examples are Amazon, Apple, and Zappos as direct sellers. Customers-to-Customers (C2C)
refers to companies offering platforms where customers sell products or offer services to
other customers. Examples are eBay, Craigslist, or individual customer sellers on
Amazon.com. C2C markets was bigger than B2C ones in the past, but B2C grows faster than
C2C in China. Consumers may trust B2C retailers more than C2C ones since B2C sellers are
more capable of building brands, have a better reputation, and provide better services. It may
explain why China’s B2C grew from 25.3% to 51.4% while C2C dropped from 74.7% to
48.6% in 2015. B2C’s growth rate (68.7%) was much higher than C2C’s growth rate (35.2%)
in 2014 in China (iResearch, 2015). C2C accounts for a greater part of e-commerce markets
in China than in the U.S. China’s C2C accounted for 60% of the online retail market share in
2013 while it dropped to 46% in 2015. B2C develops fast. China’s B2C accounted for 40% of
the online retail market share in 2013 while it grew to 54% in 2015 (Forbes, 2014). However,
B2C is more popular than C2C in the U.S (McKinsey, 2013). B2C retailers such as Amazon
account for more market shares than C2C retailers such as eBay.

China’s e-commerce is more mobile and social than e-commerce in the U.S. The
mobile commerce accounted for almost 50% of China’s e-commerce sales (eMarketer, 2015)
whereas only 30% of the U.S.’s e-commerce sale in 2015 (Internet Retailer, 2015b). More
users in China (84%) access the Internet by mobile phones than that in the U.S. (75%)
(eMarketer, 2015). Additionally, social media in the U.S. play a critical role in online
marketing. However, social media are not only marketing channels, but also channels of
online retail and payment in China. 86% of Chinese people have shopped once through social media (PricewaterhouseCoopers, 2015). About 40% of Chinese people follow a brand on social media whereas 32% of U.S people do that (PricewaterhouseCoopers, 2015). WeChat developed by Tencent is the most popular mobile instant message app in China and it has 650 million active users (Statista, 2015). Consumers can buy products or services, pay bills, or transfer money to other people by WeChat. On the other hand, e-commerce on social media is less impactful in the U.S. Consumers could sell or buy products on local Facebook group pages or send money to friends on Facebook. Most products are second-hand items.

E-commerce markets in China is dominant by several large e-commerce companies compared to the U.S. Amazon, the largest e-commerce company in the U.S., accounted for 18% of the total online retail sale in 2015 (Forbes, 2015). However, Alibaba, the China’s e-commerce giant, dominates the entire e-commerce market including B2B, B2C, and C2C. Tmall, one subsidiary of Alibaba, accounted for 61% of B2C market share, followed by JD (19%) (Statista, 2014). Taobao, another subsidiary of Alibaba, accounted for 85% of C2C market share. Small-medium sized retailers play a more crucial role in China than in the U.S. There are about 9 million retailers on Taobao and most of them are small-medium sized retailers (Aliyun, 2014).

The U.S. has relatively comprehensive legislation regarding e-commerce, whereas Chinese e-commerce lacks integral legal protection. Some key legal issues about e-commerce
include digital signatures, privacy, consumer protection, copyright, content regulation, and taxation. The U.S. has passed laws related most of them except the law about privacy, but China has only passed the law about content regulation (Gibbs & Jonas, 2000).

Online Payment Methods

The main difference of the payment system in China and the U.S. is most Chinese people still use cash in offline stores while most consumers in the U.S use debit cards or credit cards for both online and offline shopping. Several online payment methods dominate in both the U.S. and China including debit card, credit card, third-party payment, and offline payment. The credit card holder and use rate in China are lower than that in the U.S. since Chinese people have a negative attitude about debts. One China’s consumer had 3.64 debit cards while only 0.34 credit card on average by 2014 (Bank of China, 2015). In contrast, 70% of the U.S. clients have at least one credit card and 38% of them have more than two credit cards (Swift, 2014).

Credit cards are the most popular payment method for online shopping in the U.S. Credit cards account for 43.4% of total transactions in the U.S. (Rolfe, 2015). There are 48% of people who use credit cards most often, whereas 35% of them who use debit cards most often for online shopping. PayPal is one widespread digital wallet that could compete with debit or credit cards. 12% of consumers use PayPal most often for online shopping (TSYS, 2014).
Popular online payment methods in China are Alipay, Tenpay, and Union Pay. Alipay developed by Alibaba dominates China’s e-commerce market, accounting for 40% of the market share. Tenpay accounts for 19% while Union Pay accounts for 14%. Tenpay is developed by Tencent that has the most popular social media app WeChat in China. Union Pay is the only interbank network based on offline banks (Adyen, 2015). Alipay and Tenpay, as PayPal, are online payment platforms that have to be bounded with debit or credit cards of Unionpay. Most consumers connect their Alipay or Tenpay accounts with their Unionpay debit cards. Alipay is popular because it guarantees that retailers can obtain payments until consumers confirm they receive products.

Mobile payment and social media payment develops faster in China than the U.S. The mobile payment transaction was $350 billion in China while it was only $8.7 billion in the U.S. (eMarketer, 2015; China Internet Watch, 2015a). Alipay still dominates the mobile payment market, accounting for 70% of the market share. The second most popular mobile payment method is Tenpay, accounting for 20% of the market share (China Internet Watch, 2015a). The social payment through WeChat becomes more and more popular in China. WeChat is the most popular text and voice messaging communication app in China. The payment service is built in WeChat app. There are more than 200 million users who link credit or debit cards with WeChat (Techcrunch, 2015). Social payment also appears in the U.S. such as sending money to friends by Facebook, but it is not widespread.
E-logistics

There are two types of logistic systems in e-commerce: in-house and outsource.

Amazon has its own in-house logistics system including warehouses and the delivery system. Products could be shipped directly from the product manufacturers or from retailers. The advantage of in-house logistics is the power of control. With high control power, Amazon can integrate the whole process from online order, store, delivery, and return. Also, Amazon can control the delivery quality and efficiency. The disadvantages are cost and time. Substantial capital and people are needed to manage the in-house logistics. It usually takes five to seven days for shipping products that are sold or fulfilled by Amazon. It takes even longer for products that are not fulfilled by Amazon. Amazon offers free shipping with a transaction over $49 dollars. Amazon offers Amazon Prime that provides two-day shipping services. Amazon Prime charges $99 membership fee a year.

Tmall built a large logistic system called “Newbie Logistics” by cooperating with third-party logistic companies since 2013 (Bai Du Baike, 2015). Unlike Amazon, the Chinese giant Alibaba contracts with large third-party logistic companies. The shipping speed in China is faster than that in the U.S. It usually takes three days for nationwide packages and one day for city-wide packages. Retailers on Tmall offer either free shipping or shipping rate less than $2 dollars per package.
**Online Purchase Patterns**

China has the largest amount of Internet users (642 million), but the Internet penetration rate in China (46.3%) is only about half of that in U.S. (86.75%) due to the great number of total population (1393 million) (InternetLiveStat, 2014). More users in China (84%) accessed the Internet by mobile phones than that in the U.S. (75%) (eMarketer, 2015). However, U.S. online consumers enjoy higher Internet speed compared to China’s ones. 4G penetration in 2015 in the U.S. was 40%, compared to 20% in China (Venturebeat, 2015). 4G is the fourth-generation network that has a higher-speed mobile network than 3G. China’s Internet users are younger than the U.S. ones. In the U.S., the Internet usage rate is similar among people aged 18-29 (96%), 30-49 (93%), and 50-64 (81%). The Internet usage rate is still high among elderly people aged older than 64 (58%) (Perrin & Duggan, 2015). On the other hand, 80% of Chinese Internet users are younger than 39 while only 20% of them are older than 39. Only 7% of Chinese Internet users are older than 50 (ChinaInternetWatch, 2015). Also, people in the rural areas in China are more difficult to access the Internet than those in the U.S. Only 28% of China’s Internet users live in rural areas (China Internet Watch, 2015b) whereas 78% of rural residents in the U.S. could access the Internet (Perrin & Duggan, 2015).

The reason for shopping online is similar for consumers in China and the U.S. Factors that have positive impact on online shopping intentions include convenience (Foucault &
Scheufele, 2002), time saving, novelty, avoiding transportation (Raijas & Tuunainen, 2001), product value (Mathwick, Malhotra, & Rigdon, 2001), utility of communication and distribution (Li, Kuo & Rusell, 1999), order easiness (Raijas & Tuunainen, 2001), and perceived results (Limayem, Khalifa, & Frini, 2000). The thing that Internet users concern most is privacy.

There are some differences among online shoppers in China and U.S. China’s consumers resist using credit cards (Gibbs and Kraemer, 2004). They perceive more risks than U.S. consumers, probably because product return and quality are not guaranteed and there are many counterfeits in China (Toe, Wang, & Leon, 2004). The U.S. consumers check retailers’ information more frequently than the China’s consumers because they pay more attention to their privacy (Liao, Proctor, & Salvendy, 2009). Additionally, there are more Chinese mobile consumers (43%) than U.S. counterparts (30%) (Nielsen, 2013a). The reason why consumers shop on mobile devices is different. The innovativeness, perceived usefulness, perceived ease of use, perceived cost, and subjective norms are factors that predict that use of mobile devices for online shopping for Chinese consumers. Predictors of consumers’ intention to shop on mobile devices in the U.S include the privacy concern, the perceived usefulness, perceived enjoyment, and compatibility (Dai & Palvi, 2009).

Social media are more important for Chinese consumers than the U.S. shoppers. PricewaterhouseCoopers (2015) reported 86% of Chinese consumers shopped through social
media while only 29% of the U.S. consumers did so. C2C is more important in China. A lot of C2C retailers are small or medium sized retailers and they are more active to use social media like QQ, WeChat, or microblogs as a marketing tool to build a closer relationship with customers with low cost. China’s customers may communicate directly with retailers through social media more often than U.S. customers because small or medium sized retailers are much responsive on social media. B2C dominates the U.S. online retail market. The U.S. consumers use social media less often to communicate with retailers directly except they have some questions.

China’s consumers pay more attention to cost effectiveness or economic aspects of a product probably because of their lower economic status. Online retailers should guarantee the economic aspects of a product such as product quality, warranties, and postsale service. U.S. consumers pay more attention to hedonic aspects of a product and new information technology, so merchants should offer more hedonic content or features (Liao, Proctor, & Salvendy, 2009).

In terms of logistics, Chinese consumers expect faster shipping speed than the U.S. ones. In the U.S., consumers usually receive product packages within one week. Amazon Prime members can receive products within two days. China’s shoppers expect they can receive products within three days nationwide. If retailers are in the same city where shoppers are, China’s customers expect they could receive items within one day. In the U.S., packages
are dropped out of the front door or delivered next time if receivers are not at home. The U.S.
consumers only need to sign for some packages instead of all. However, in China, delivery
staff would call consumers to pick up packages in person and customers have to sign all
packages to show they have received items.

    Showrooming is more popular in the U.S. than China. Showrooming is a way by
which people examine products in brick and mortar stores and then buy them online with a
lower price. In the U.S., 43% of people are involved in showrooming and 54% of these
showrooming consumers will buy online (Digby, 2013). This phenomenon is not common in
China since a lot of online retailers do not have brick and mortar stores.

Amazon vs. Tmall

    Current state. This study focuses on consumers’ trust in retailers on Amazon.com
and Tmall.com, the two largest e-commerce sites in the U.S. and China. Amazon as a
company was built in 1994. It is the largest e-commerce site in the U.S, accounting for 18%
of the total online retail sale in 2015 in the U.S. (Forbes, 2015). It began as an online
bookstore, but soon it sells diversified products globally. It sells both physical media products
such as DVDs, CDs, and digital media products such as music, movies, softwares, etc.
Amazon also produces consumer electronics such as Kindle e-book readers, Fire
TVs, and Fire Phones, etc. Amazon offers home services such as home repairs, automotive
services, electronics repairs, etc. (Wikipedia, n.d.).
Amazon is not only a platform where a lot of retailers sell their products, but also a retailer that sells products. Products on Amazon are sold either by Amazon itself or the third-party sellers. Among all the third-party retailers, some of them are fulfilled by Amazon while some are not. Products sold by third-party sales through Fulfilled by Amazon (FBA) are packaged and shipped by Amazon. Also, Amazon handles customer service and product return. In terms of products sold by third-party retailers that are not fulfilled by Amazon, the third-party retailers handle the packaging, shipping, return, and customer service. Consumers prefer products sold by FBA since they can receive their items faster and returning is guaranteed if anything goes wrong. Third-party sales through FBA accounts for 35.4% of Amazon's overall sale volume (Borison, 2015).

Tmall is the largest B2C site in China, accounting for 61% of B2C market share (Statista, 2014). Tmall is the subsidiary of Alibaba that dominates China’s e-commerce market. Tmall was built in 2008 as a B2C online retail site. Taobao was built in 2003 as a C2C online retail site (customer-to-customer). Taobao succeeds in e-commerce markets. However, product quality and return are not guaranteed since most retailers on Taobao are small and medium size retailers. A lot of customers complain counterfeits and product quality on Taobao. Alibaba develops Tmall in order to provide high-quality products, especially products with brands.
Tmall is a B2C platform instead of a retailer since it does not sell any products. It targets Chinese market so far whereas Amazon sells products globally. Physical media products are sold such as DVDs, CDs, but digital media products such as online music or movie, software are not offered on Tmall. There are two types of stores on Tmall including flagship stores and franchised stores. Flagship stores sell products with their own brands such as Apple and Sony flagship stores on Tmall. Franchised stores sell products with one or more authority granted brands. Third-party retailers fulfilled by Tmall refer to those with the guarantee that customers can return a product within seven days without any reasons. However, product return is not so easy in China as in the U.S., even for retailers with the return guarantee.

**Product review system.** Amazon and Tmall have their own product review systems. A lot of differences exist between the product review system on Amazon and Tmall (Figure 2.9). 1) *Length.* Overall, product reviews on Tmall are shorter and offer less details about a product or user experiences than that on Amazon. 2) *Order.* All customer reviews are ordered based on the time they post on Tmall and the most recent reviews will be shown first. 3) *Star scores.* On Tmall, there are two sections of star scores. One is the overall star rating out of five stars for a product. Another is star ratings for a retailer including star rating for consistency of description and products, services, and delivery (Figure 2.9 & 2.10). 4) *Rich-media reviews.* Customers can post text and picture reviews on Tmall, but cannot post video
reviews. There are more customers on Tmall who post picture reviews than that on Amazon.

Customers can choose to read picture reviews only by filtering all text reviews on Tmall. 5) 

*Anonymity.* Most customers post reviews anonymously on Tmall, probably because of the

default setting. 6) *Reviewers’ profile.* Customers cannot visit reviewers’ personal profiles

because they post reviews anonymously, but reviewers’ statuses will be shown, even though

they post reviews anonymously. There are four statuses including T1, T2, T3, and T4. T1 is

the lowest status while T4 is the highest status. The level of status depends on customers’

frequency of visiting, purchase, posting reviews, and other activities on Tmall. 7) *Interaction.*

Reviews may obtain replies of retailers on Tmall, but customers or reviewers cannot interact

with each other on review pages (Figure 2.12). 8) *Volume.* The sale volume and the review

volume will be shown on review pages on Tmall (Figure 2.11). 9) *Post-purchase reviews.*

There is one feature called “post-purchase reviews” with which customers can post reviews

twice (Figure 2.12). Customers can post a review when they receive a product and then post

another review when they use the product. Consumers can read post-purchase reviews only

by filtering them. 10) *Question and Answer.* There is no “Question and Answer” section on

Tmall.
Figure 2.9 Product reviews on Tmall

Figure 2.10 Star ratings of a retailer on Tmall

Figure 2.11 Product sales and review amount on Tmall

Figure 2.12 Post-purchase reviews and retailer’s reply on Tmall
1) **Length.** In terms of Amazon, overall, product reviews are longer and offer more details about a product or user experiences than that on Tmall (Figure 2.13). 9) **Top reviews and recent reviews.** There are two sections on Amazon’s review system including top reviews and recent reviews (Figure 2.13 & 2.15). Top reviews are the most helpful reviews voted by customers. The most helpful reviews and the most recent reviews show first on each section.

3) **Star score.** Amazon shows what percentage of customers give one star or two stars out of five stars to a product (Figure 2.14). 2) **Rich-media reviews.** Amazon allows customers to post text, picture, and video reviews (Figure 2.13 & 2.15), although there are not many video reviews so far. A picture only feature is added recently on the right side of the review pages on Amazon. Customers can read all picture reviews only. Overall, there are fewer picture reviews on Amazon than on Tmall. 3) **Anonymity.** Most reviewers post reviews with their user names on Amazon (Figure 2.13). 5) **Reviewers’ profile.** Customers can visit reviewers’ profiles and see their review histories on Amazon (Figure 2.16). Reviewers who post numerous high-quality reviews will be labeled as “Top 500 Reviewer” on Amazon (Figure 2.13). 6) **Interactions.** There is customer-reviewer interaction and customer-customer interaction, but no interaction between customers and retailers on Amazon (Figure 2.17). Customers can leave a comment or ask questions to a reviewer and they may obtain replied from the reviewer. Customers can also vote for reviews if they believe a review is helpful. 7) **Volume.** The volume of total reviews will be shown but the volume of total sales of a product
will not be shown on Amazon (Figure 2.14). 8) Question and Answer. There is a “Question
and Answer” section on Amazon where customers can ask questions and obtain replies from
other customers (Figure 2.18).

Figure 2.13 Product reviews on Amazon

Figure 2.14 Star ratings of a product on Amazon

Figure 2.15 Recent reviews and image reviews on Amazon
Figure 2.16 A reviewer’s profile and review history on Amazon

Figure 2.17 Interaction between reviewers and customers on Amazon

Figure 2.18 Questions and answers on Amazon
**Payment methods.** In terms of payment methods, Amazon customers can pay for items by credit cards, debit cards, or Amazon gift card balance. Credit cards or debit cards are popular payment methods in the U.S. since they are convenient and fast. Tmall customers pay for items by Alipay, credit cards, debit cards, cash on delivery, or installment payments. Cash on delivery and installment payments are available for some products. Alipay is the most popular payment method on Tmall. The goal of Alipay is to make online transactions safer and more convenient. It works as a safe transit point. Retailers will obtain the money until consumers confirm they receive the product, so Alipay diminishes customers’ risks.

**Individuals’ Characteristics**

Individuals’ characteristics including online shopping proficiency and income will be included in the study as control variables because they have been found to be related to trust (e.g., Gefen, 2000; Gefen et al., 2003; Metzger, 2006; Teo & Liu, 2007).

Consumers’ shopping proficiency affects their trust in both online retailers and Internet technology (e.g., Corbitt, Thanasankit, & Yi, 2003). Experienced consumers feel fewer risks than novice consumers (Metzger, 2006). Repeated consumers trust online retailers more than potential consumers (Gefen et al., 2003). Repeated consumers’ purchase intentions are affected by trust, usefulness, and ease of use of e-retailers’ websites whereas trust is the only one predictor of potential consumers’ purchase intentions. Also, consumers’ familiarity with online shopping is positively related to their trust and satisfaction towards a website.
(Yoon, 2002). Customers who have more experiences with online shopping websites are more likely to search for products (Gefen, 2000), spend more time on the site (Hassanein & Head, 2007), have positive attitudes towards the site (Hassanein & Head, 2007), and have purchase intentions (Gefen, 2000).

Consumers’ income affects their trust and purchase decisions. People with low income are more likely to focus on financial risks and products’ performances than those with higher income (Laforet, 2008). This study will examine the relationship between income and trust in online retailers directly.
CHAPTER III. THEORY AND CONCEPTUAL FRAMEWORK

Theory

This study examines the antecedents of customers’ trust in online retailers including the micro factor, the interactivity of online product review use and macro factors, the perceived social inequality and culture. The researcher assumes perceived social inequality changes people’s social trust in others, which in turn may affect trust in online retailers based on reciprocity and the tendency of in-group favoritism and out-group derogation. The interactivity can affect people’s trust in online retailers by increasing the information of products or services, improving the communication effectiveness between buyers and sellers, and enhancing the interactive experiences based on information asymmetry, social presence, and social influence. Interactivity is necessary for building trust because of the information asymmetry in online transactions, which is the focus of this study.

Reciprocity

The economy theory assumes people are selfish and tend to maximize their profits. However, many experiments demonstrate people have a reciprocity pattern. Reciprocity occurs when people repay others’ favors and punish others’ unkind behaviors (Falk & Fischbacher, 2000). Reciprocity is different from altruism. Under Reciprocity, people do a favor to others with the expectation of the reward from others in the future. In contrast,
people with altruism help others without the expectation of repaying in the future (Batson, Duncan, Ackerman, Buckley, & Birch, 1981).

There are positive and negative reciprocities. Many positive reciprocity examples exist in our lives from birthday presents to gifts. In 1976, Kunz and Woolcott (1976) conducted an experiment to test reciprocity. They sent out numerous festival cards with greeting messages to strangers. They received a lot of cards back from people who had never known him or met him. People are obligated to repay after receiving initial favors, invitations, gifts, etc. Besides positive reciprocity, negative reciprocity also exists. People will punish others’ negative or unkind behaviors, even involve in retaliation. For example, people will give less amount of tips as a return to waiters/waitresses who provide terrible services. People may fight with a person who punches them first.

In a society with high social inequality, people who are treated unequally may punish others’ unkind actions, even involved in social retaliations. They may blame the social environment and general others for their poverty, fewer resources, and low social status. Thus, they may be less trusting general others. On the other hand, in a society with low social inequality, the boundaries between different groups and people with different social statuses are small. People have similar income, resources, and rights. They are less likely to involve in negative reciprocity or social retaliations. Social inequality decreases economic growth (Persson & Tabellini, 1994) and social capital formation (Blanchard & Kremer, 1997). Also,
social inequality has a strong effect on violent crimes (Kelly, 2000). Bicskei, Lankau, and Bizer (2016) have found people who are in groups with heterogeneous social identities have more negative reciprocities than those who are in groups with homogeneous social identities.

In the U.S., minorities may have higher perceptions or more experiences of discrimination, so they are more likely to involve in negative reciprocity and have lower trust in others. African Americans perceive a higher level of racism than White people. They also have less trust in healthcare services than Whites (Adegbembo et al., 2006). Scholars argue perceptions and experiences of racism may explain the Black’s lower trust in healthcare than Whites. Empirical studies also confirm this argument. Also, Blacks’ perceptions of racism and distrust of Whites reduce their trust in healthcare providers and their satisfaction with the healthcare services (Benkert et al., 2006).

In China, “Peng Ci”, the Good Samaritan scam, decreases Chinese people’s social trust in others. “Peng Ci” (literally "touch porcelain") refers to the phenomenon that a person pretends to hit a car intentionally in order to rip off the car driver or the person who provides assistance. With a lot of cases of “Peng Ci”, people’s trust in others may be decreased and less likely to help others in case blackmails. For example, in 2015, a man who was 57 years old fell down on a road. No one helped him when twenty-three people and four cars passed by and rushed away. One car even crushed over him. He was sent to the hospital after a long time, but died (BBC News, 2015). Similar cases happened in many cities in China.
In sum, in a society with low social inequality, people are more likely to involve in positive reciprocity since they obtain equal resources and opportunities. Thus, they may be more trusting in others including online retailers. On the other hand, in a society with high social inequality, people are more likely to involve in negative reciprocity since they obtain fewer resources and opportunities. Hence, they may be less trusting in others and then online retailers.

**In-Group Favoritism and Out-Group Derogation**

In-groups are social groups in which an individual identifies himself/herself as a member psychologically. In contrast, outgroups are social groups in which a person does not identify himself/herself as a member. People usually identify themselves or others based on demographics such as gender, age, race, religion, culture, institutions, etc. (Tajfel, Billig, Bundy, & Flament, 1971). Sociologists and psychologists have found people have a tendency of in-group favoritism and outgroup derogation. In-group favoritism occurs when people have more positive attitudes toward in group members. Outgroup derogation occurs when people have more negative attitudes toward outgroup members. In-group favoritism usually accompanies outgroup derogation, but in-group favoritism may not necessarily imply outgroup derogation and the two can be unrelated. People trust in groups more than outgroups because in-groups have more common goals and values, while in-group members view outgroups as a threat. In-group identification strengthens group values and goals while
depersonalizes individual members (e.g., Bigley & Pearce, 1998; Brewer, 1999; Tajfel et al., 1971).

Social inequality may intensify in-group favoritism and out-group derogation. Social inequality widens the social distance between different groups, which means it increases the intergroup differences and decreases the intergroup similarities. In a society with low social inequality, people are more similar since they obtain similar resources and opportunities. There are more common goals and values and less conflict and social comparison among different groups since resources are distributed more evenly. More comparison leads to less trust and cooperation because comparison with others may lead to jealousy and conflicts. Studies report that people feel depressed and anxious about communicating with individuals they are compared with (Salovey & Rodin, 1984). Thus, social equality also increases people’s optimism that the world is a good place and it will be better (Uslaner, 2004). People are more likely to be benign (benevolence dimension of trust) and honest (integrity dimension of trust) to other people, and care others’ welfare (emotional trust) in order to achieve a common goal (Kramer & Brewer, 1984; Kramer, Brewer, & Hanna, 1996). Thus, social equality increases social trust and cooperation.

People are more dissimilar in a society with high social inequality. Social inequality damages social bonds and the perceived share fate (Uslaner, 2002). There are less common goals and values, more conflicts, and social comparison among different groups since the
resources competition is more intense. Social comparison may result in prejudice and hostility. Disadvantaged groups have a stronger perception of in-group identification and prejudice against advantaged groups since they view advantaged groups as a threat to their own resources and welfare (Brewer, 1999). In an unequal society, people are less likely to be benign (benevolence dimension of trust) and honest (integrity dimension of trust) to other people and care others’ welfare (emotional trust) (Kramer & Brewer, 1984; Kramer et al., 1996). As a result, people in a society with high social inequality may distrust others and have less cooperation with others.

The decreased social trust that aggravates people’s uncertainty in others may affect their trust in online retailers. Trust in retailers is the trust of strangers instead of acquaintances such as families or friends. On one hand, people may transfer social trust in others to trust in online retailers. The transfer occurs more easily to strangers than acquaintances since trust in strangers can happen in a short time while it needs time, interaction, strong relationships, and previous knowledge of others to build trust in acquaintances. People often trust others without knowing everything about them (Lewis & Weigert, 1985). On the other hand, it is easy for people to trust strangers if the person lives or works in a place or context where trust or strong norms of reciprocity exist and are valued. For example, people are more likely to trust priests or police officers since they work in a context where trust is expected. People
will offer a legitimation for their trustworthiness (Hearn, 1997). Therefore, people are more likely to trust online retailers in a society where high social trust exists.

**Information Asymmetry**

The information asymmetry occurs when one party in a transaction has more information than another party, which may result in adverse selection or moral hazard. Adverse selection exists when buyers and sellers have different information (Akerlof, 1970). The party with more information will selectively involve in a transaction in which they can get most benefits. Moral hazard occurs when the party with more information takes actions inappropriately, which results in the detriment of the other party (Dellarocas 2005, 2006; Dewan & Hsu, 2004; Genesove 1993; Kauffman & Wood, 2000).

Akerlof (1970) examined “the market for lemons” issue due to information asymmetry. A buyer of a used car cannot differentiate a high-quality car (peach) from a low-quality car (lemon) while a seller has more information about the car’s quality. Buyers are willing to pay an average price of a peach and a lemon. As a result, sellers sell lemons to make a profit and keep the peaches. However, the market may collapse if only lemons (low-quality products) are sold. Hence, the information asymmetry should be decreased in order to develop a healthy market.

The information asymmetry in the online shopping context may be more serious than the off-line context. Online shopping involves more risks than offline shopping. Online
sellers have more information about product quality than online buyers such as product’s quality, actual size, color, or texture, the online store’s size. Trust exists with uncertainty. If consumers are 100% sure about product qualities or retailers, they do not have to decide if they would trust a retailer or not. Trust also exists with risks. Adverse selection happens when online buyers trust an untrustworthy seller and purchase a low-quality product because they have less information about the product quality and the seller (Mavlanova, Benbunan-Fich, & Koufaris, 2012). Moral hazard occurs when an online seller behaves inappropriately such as selling a defective product, which leads to buyers’ loss (Pavlou, Liang, & Xue, 2007).

Product reviews and information technology help reduce the information asymmetry between consumers and sellers since they enable consumers to access more information about products and other consumers’ usage experiences. Compared to offline shopping, online buyers can access more information through search engines or word-of-mouth such as product reviews to reduce transaction risks and build trust in online retailers. The information quality affects trust in online retailers (e.g., Nicolaou & McKnight, 2006; Siau & Shen, 2003). Less information or misinformation may lead to distrust or mistrust in online retailers.

This study focuses on the perceived interactivity of product review use. The interactivity of product review use helps decrease the information asymmetry between online customers and sellers. Product descriptions on e-commerce sites or ads may overstate positive aspects of a product, so they are less objective. Consumers can access product
attributes of search products such as electronics from product descriptions. However, it is difficult for them to access information of experience products such as wine, food, music prior to purchases. The interactivity including social presence, personalization, and playfulness adds social cues and provides more information about product attributes and user experiences for customers. Media richness can enhance social presence. Consumers access more vivid product information such as colors or textures in image or video reviews than textual reviews, which help them make a wise purchase decision. Perceived personalization provides customers’ actual use experiences of a product or service such as sensations, touch feelings, or tastes. Therefore, product reviews minimize information asymmetry by providing more information about a product and user experiences for customers.

**Hyperpersonal Communication**

Hyperpersonal model suggests computer-mediated communication (CMC) exceeds face-to-face (FtF) interaction and become hyperpersonal interaction (Walther, 1996). The hyperpersonal model has four elements including message senders’ self-presentation, receivers’ idealization of the sender, channel management, and feedbacks. Walther (1996) suggested CMC is an asynchronous communication that allows senders to have ample time and greater opportunities to edit and refine their messages, which optimizes self-presentation and manages impressions. The receiver may build idealized impressions toward the sender. Walther (1996) considered feedback as behavioral confirmation. He argued the reduced cues
such as non-verbal cues in CMC may make receivers to magnify or exaggerate subtle cues in the communication when they receive self-presented information from the sender.

Communicators build relationships and impressions by information and performances. Thus, information, expressions, and performances in the communication are more important than physical cues such as looks, race, gender, etc. In the face-to-face WOM, consumers receive friends or family’s opinions about a product. The referral sources’ reputation and the strength of social ties exert a strong impact on consumers’ trust and decisions. In online product reviews, reviewers are anonymous or use pseudonyms and consumers have weak ties with reviewers. Reviews’ characteristics such as information richness, valence, volume, etc. are more impactful on consumers’ trust and purchase decisions.

Culture is found to exert an impact on people’s perceptions on WOM. Doran (2002) found Chinese consumers are more likely to depend on reference groups’ opinions to make decisions than Americans. American customers prefer making decisions by their own experiences and knowledge than Chinese ones. People in collectivism culture may be more likely to depend on WOM to make purchase decisions compared to individualists (Doran, 2002). Collectivists are also more likely to think or behave similarly compared to individualists due to the social pressure (Yaveroglu & Donthu, 2002). Doran (2002) found “the presence of the information sender influences recipients’ understanding of the message” (Miranda & Saunders, 2003, p.89). The availability of more social cues in a communication
medium generates a higher level of social presence, resulting in higher social pressure and normative influence on group members.

Culture may lead to different attitudes towards the same information (Dobele et al., 2007). The messages American consumers perceive as positive ones may be negative for Chinese counterparts. Multiple Pathway Anchoring and Adjustment model (MPAA, Cohen, & Reed, 2006) suggests that people form attitudes or perceptions by multiple routes to guide their behaviors, anchoring on either knowledge or information stored in memory previously (i.e., primacy effect) or information readily available in the context (i.e., recency effect). Christodoulides, Michaelidou, and Argyriou (2012) have found Chinese consumers prefer forming attitudes by recent effect than UK consumers. Chinese consumers have fewer purchase intentions when they are exposed to positive e-WOM, followed by negative e-WOM. On the other hand, the negative e-WOM has greater impacts on UK consumers than Chinese ones because their purchase intentions do not increase when they are exposed to negative e-WOM, followed by positive e-WOM.

According to hyperpersonal model, the message receivers may magnify or exaggerate subtle cues in the communication due to a lack of nonverbal cues. Product review section on websites provides a lot of information. Consumers from different cultures may pay attention to different messages with different levels. Their attention and interpretation of the same message and the level of magnification of subtle cues may also vary. Product reviews that
reflect other people’s opinions may exert greater impact on collectivists than individualists generally. Also, the volume of positive or negative reviews may be more influential on collectivists than individualists due to the social pressure (Yaveroglu & Donthu, 2002).

Consumers from high power distance culture may pay more attention to if a product brand is famous compared to those from low power distance. Collectivists may be more likely to view the platform (e.g., Amazon) with retailers on the platform (third-party retailers guarantee by Amazon) as an integrated group, then transfer the trust on the platform to the trust on the retailers. Thus, this study proposes culture exerts an impact on consumers’ trust in online retailers.

**Social Presence**

Researchers examine and understand social presence from different perspectives. Daft and Lengel (1986) developed Media Richness Theory. Media Richness Theory evaluates a communication medium based on its ability to reproduce the information sent over it, reduce the equivocality of a message, and promote understanding and effective communication. It suggests the richer the medium is, the more effective communication is. The richest medium is face-to-face communication, followed by video conferencing, telephone, 2-way radio, addressed written document (e.g., email), and unaddressed document (e.g., posters). This theory was developed after Short et al., (1976) who first proposed the relationship between social presence and media richness.
Scholars suggest social presence is related to media richness. Early scholars view social presence as one characteristic of a medium itself and suggest social presence is different for different media (Short et al., 1976). These scholars point out visual channels are useful for complex activities and are one advantage of communication medium (Short, 1974). However, other scholars challenge this point and augure that the usefulness is depending on the task instead of the medium (Williams, 1975). Williams (1975) suggested no-visual media such as telephones are more useful for some private or embarrassing tasks than visual media.

Social presence is related to intimacy and immediacy (Short et al., 1976). Immediacy refers to synchronicity in communication. Dean (1965) augured intimacy was affected by people’s facial expressions, eye contact, physical proximity, shared topics, etc. The intimacy (interpersonal vs. mediated) and immediacy (asynchronous vs. synchronous) can affect a medium’s social presence. The social presence of an interpersonal communication (e.g., face-to-face) is higher than that of a mediated communication (e.g., telephone). The social presence of synchronous communication (e.g., live chat) is higher than an asynchronous communication (e.g., email). Researchers have found mediated communication could be as efficient as face-to-face communication (Bos, Olson, Gergle, Olson & Wright, 2002). Picture or video product reviews can show both verbal and non-verbal languages, which offers more product information and reduces customers’ risks. However, social presence in the medium with higher media richness may not necessarily be higher than the medium with lower media
richness. For example, people may feel a lower level of social presence when seeing a photo of a product without the appearance of human bodies or faces compared to a detail textual description of personal experiences or stories.

Other scholars emphasize the social context and the characteristics of communicators in the communication. Gunawardena (1995) examined students’ experiences of social presence in the computer mediated online learning environment. She found it was the sense of community that made students perceive the mediated communication as a social activity and affected their perception of social presence. Additionally, Gunawardena and Zittle (1997) found that communicators’ skills, techniques, moderators, and online communities exerted an impact of perceived social presence instead of the medium. They reported students’ social-emotional experiences such as the use of emoticons increased the level of perceived social presence.

In online shopping context, the community involves in the product review use experiences. Customers who read product reviews and those who post reviews are in the same group relative to the retailer group. They have similar interests in a same product and intentions of purchasing the product. They share product information to help each other. A customers’ willingness to help other customers may affect how detailed information he/she will provide and the time he/she would like to spend in writing product reviews. A consumer
who is highly willing to help others may take product photos or even record videos. These reviews, in turn, affect consumers’ perception of social presence.

A group of scholars investigate social presence from the network perspective. Biocca, Harms, and Gregg (2001) argued social presence is one quality of people instead of a medium or technologies. They suggested there are three dimensions of social presence including co-presence, psychological involvement, and behavioral engagement. Co-presence is the lowest stage of social presence. Co-presence refers to the sense of mediated body spatially and the awareness of others’ intentions, sentience, and identities. Psychological involvement is the second level of social presence. It refers to the extent to which individuals connect them to others intentionally, cognitively, or affectively. Behavioral engagement is the highest level of social presence. It refers to the degree to which communicators are responsive to each other.

The social presence of product review use experiences involves co-presence and psychological involvement. For co-presence, consumers who read product reviews are aware of the existence of reviewers. They may even obtain some information about reviewers’ identities such as gender, occupation, or age in certain detailed reviews. The awareness of presence is one-sided since only customers who read reviews are aware of reviewers whereas reviewer may not be aware of potential customers. Customers and reviewers may be aware of each other on Amazon since they can communicate with each other. For psychological involvement, customers may connect to other consumers intentionally, cognitively, or
affectively. They think about information offered by product reviews and may feel and be affected by reviewers’ emotions such as satisfaction, dissatisfaction, angry, or complaint about a product. However, the responsiveness level is low in the product review experiences. On Tmall, after customers post reviews, they cannot know what other customers feel after reading their reviews. However, reviewers may obtain retailers’ replies such as an apology. On Amazon, consumers can vote if they believe one review is helpful or not. This responsiveness between communicators is lower compared to video-conferencing in which two persons talk to each other synchronously and immediately.

Social Influence

Social influence exists when individuals’ ideas, emotions, or behaviors are influenced by others (Kelman, 1958). Kelman (1958) proposed three types of social influences including identification, compliance, and internalization. Identification occurs when individuals are affected by people they like, respect, or admire. Compliance happens when individuals appear to accept others’ opinions, but insist their own ideas in minds. Internalization exists when people accept opinions or behaviors both in their minds and publicly (Kelman, 1958). Consumers are involved in the same process when reading product reviews as in the actual social context in which they decide if they conform to the majorities or keep their own ideas. Some website features in product reviews affect social presence and involve social influences. The number of purchases, positive reviews, negative reviews, or star points shows
the popularity of a product and what products others like and purchase. Some customers may trust a retailer with highest positive ratings and distrust a retailer with many negative reviews. Customers may trust expert reviewers such as “Top 500 Reviewer” on Amazon more than other reviewers (Figure 3.1 & 3.2). These customers are affected by social influence.

**Conceptual Framework of the Study**

**Dependent Variables**

**Trust in online retailers.** Mayer, Davis, and Schoorman’s (1995) definition of trust is used in this study. Trust refers to the extent to which a trustor is willing to be vulnerable to a trustee’s behaviors that are important to the trustor, no matter the trustor can control the trustee or not. Trust in online retailers contains trust in famous brands, trust in third-party retailers on Amazon or Tmall and trust in third-party retailers fulfilled by Amazon or Tmall.

**Actual online purchases.** Actual online purchases refer to consumers’ actual online purchases on Amazon or Tmall. There are three factors including online shopping frequency, online shopping diversity, and the total amount of money spent on Amazon or Tmall. Online
shopping frequency refers to how often a customer makes a purchase per year on Amazon or Tmall. Online shopping diversity refers to how many different types of product a customer purchase on Amazon or Tmall.

**Independent Variable**

**Perceived interactivity.** This study focuses on users’ subjective perceived interactivity instead of interactivity as an objective website feature. Thorson and Rodgers (2006)’ definition is applied in this study. They relate perceived interactivity with social presence. They argue interactivity is the extent to which people perceive their experiences simulate interpersonal interaction and feel the existence of social actors. Three dimensions of interactivity will be examined in the study: 1) social presence 2) personalization, 3) playfulness.

**Social presence.** Social presence in this study refers to if communicators perceive human warmth, sociability, and human contact (Yoo & Alavi, 2001). Some scholars emphasize the importance of facial expressions, gestures, and non-verbal cues in social presence (Short et al., 1976). While other researchers focus on users’ experience of human contact, warmth, sociability, and sensitivity (Rice & Case, 1983; Steinfield, 1986; Hassanein & Head, 2007). The latter perspective is used in this study since warmth and sociability plays a more important role in the e-commerce context and the interaction between consumers and online reviews.
**Personalization.** Perceived personalization in this study is defined as the level to which a customer feels a product review meets his/her demand and reflects reviewers’ personal experiences. It is a mental perception of a customer when reading product reviews.

**Playfulness.** Playfulness refers to an individual’s emotional perceptions. When measuring the interaction with product reviews, playfulness should be included in order to evaluate the users’ emotional perception besides cognitive perception about the information quality. Playfulness is the overall evaluation of customers’ emotional experiences when they read product reviews. It includes three dimensions: concentration, curiosity, and enjoyment. Concentration refers to the extent to which users pay attention to the information or the interface. Curiosity refers to the extent to which users are inquisitive. Enjoyment refers to the extent to which users feel the interaction experience is interesting (Moon & Kim, 2001).

**Perceived social inequality.** Social inequality happens when resources are distributed unevenly in a society. The recourses include economic resources such as income or financial services, social and political rights, social status, public goods such as education or health care, housing, or transportation, etc. (Sernau, 2013). This study focuses on people’s perceived social inequality since the greater social inequality they perceive, the greater impact the social inequality may exert on their social trust and trust in online retailers. Social inequality in this study includes inequality of income, education, opportunities, health care, and opinion expressions.
Individualism/collectivism. Individualism/collectivism are two important dimensions of Hofstede’s (1980) cultural model. People in individualism culture identify themselves as independent and autonomous individuals (Dumont, 1986). Individualists emphasize the value of individuals and promote the satisfaction of individuals’ demands. People in collectivism culture identify themselves as one part of the society instead of separating them with rest of the whole society (Taylor, Miracle, & Wilson, 1997). They emphasize that the value of the whole group, society, or country is more important than that of individuals.

Power distance. Power distance is the extent to which less powerful members in a society accept that power is distributed unequally. The recourse gap between powerful people and weak people is large in a society with high power distance.

Research Model, Questions, and Hypotheses

In this research study, perceived interactivity is assumed to be positively related to trust in online retailers by reducing the information asymmetry. The perceived interactivity of product review use includes three dimensions: social presence, personalization, and playfulness. Previous studies have shown personalization can help building trust (e.g., Lee & Lin, 2005; Rajamma et al., 2007). Playfulness is positively related to customers’ satisfaction (Jarvenpaa & Todd, 1996). Social presence is related to media richness (e.g., Rice, Hughes, & Love, 1989; Straub, Karahanna, 1998). Customers who perceive social presence when
reading product reviews may feel other customers’ human contact, warmth, and sociability (Rice & Case, 1983; Steinfield, 1986; Hassanein & Head, 2007). Thus, social presence may be also positively related to trust in online retailers. Based on above literature, H1 is proposed regarding interactivity and online trust:

H1. Perceived interactivity of product review use is positively related to consumers’ trust in online retailers on Amazon and Tmall.

H1a. Perceived interactivity of product review use is positively related to consumers’ trust in famous brands on Amazon/Tmall.

H1b. Perceived interactivity of product review use is positively related to consumers’ trust in third-party online retailers on Amazon/Tmall.

H1c. Perceived interactivity of product review use is positively related to consumers’ trust in third-party online retailers fulfilled by Amazon/Tmall.

The researcher assumes social inequality will have a negative impact on consumers’ trust in online retailers since it is found be negatively related to people’s social trust (Rothstein & Uslaner, 2005) based on reciprocity and the tendency of in-group favoritism and out-group derogation.

H2. Perceived social inequality is negatively related to consumers’ trust in online retailers on Amazon/Tmall.
H2a. Perceived social inequality is negatively related to consumers’ trust in famous brands on Amazon/Tmall.

H2b. Perceived social inequality is negatively related to consumers’ trust in third-party online retailers on Amazon/Tmall.

H2c. Social inequality is negatively related to consumers’ trust in third-party online retailers fulfilled by Amazon/Tmall.

The ultimate goal of this study is to compare the relative importance of the micro factor, the interactivity of product review use and the macro factors (social inequality and culture) in predicting customers’ trust in online retailers. Hence, R1 is asked:

R1. Among the interactivity of product review use, social inequality, culture, which is the strongest predictor of trust in online retailers on Amazon/Tmall?

In addition, the strength of different dimensions of interactivity on trust in online retailers will be compared to give more insights for e-retailers since they can improve the interactivity. Also, the predictors of interactivity are investigated.

R2. What are the predictors of perceived interactivity of product review use?

R3. Among three dimensions of the interactivity of product review use, which is the strongest predictor of trust in online retailers on Amazon/Tmall?

Collectivists are more likely to build trust depending on transference process than individualists (Doney et al., 1998). Compared to individualists, collectivists are more likely to
view Amazon or Tmall and the third-party retailers fulfilled by them as one integrated group and transfer their trust in Amazon/Tmall to fulfilled retailers. Hence, collectivists are more likely to trust third-party retailers fulfilled by Amazon/Tmall.

Individualists are more likely to form trust based on a calculation or capability process than collectivists (Doney et al., 1998). Individualists are more likely to assess third-party retailers as a unique party and separate each third-party retailer with others instead of considering them as an untrustworthy group. Thus, individualists are more likely to trust third-party retailers.

H3a. Individualism is positively related to consumers’ trust in third-party retailers on Amazon/ Tmall.

H3b. Collectivism is positively related to consumers’ trust in third-party retailers fulfilled by Amazon/Tmall.

The U.S. is individualism culture while China is collectivism culture (Hofstede, 1983). Thus, individualism’s effect on trust in third-party retailers would be stronger in the U.S. than in China whereas collectivism’s effect on trust in fulfilled third-party retailers would be stronger in China than in the U.S. Thus, H5a and H5b are proposed:

H4a. The individualism’s effect on trust in third-party retailers is stronger in the U.S. than in China
H4b. Collectivism’s effect on trust in third-party retailers fulfilled by Amazon/Tmall is stronger in China than in the U.S.

People in high power distance culture value experts and authorities more than those in low power distance culture. Thus, they may believe famous brands have a higher level of expertise and capability to provide high-quality products. Because the power distance is higher in China than in the U.S. (Hofstede, 1983), power distance’s effect on trust in famous brands may be stronger in China than the U.S. Thus, following hypotheses are proposed:

H5a. Power distance is positively related to consumers’ trust in famous brands on Amazon/Tmall.

H5b. Power distance’s effect on trust in famous brands is stronger in China than in the U.S.

In addition to the predictors of trust in online retailers, the relationship between trust in online retailers and actual online purchases is also examined. Previous studies have shown consumers’ trust is positively related to their purchase intentions (e.g., Cook et al., 1979; Gefen, 2000), but they do not examine actual online purchases. Three dimensions of actual online purchases will be examined in this study including online shopping diversity, online shopping frequency, and the amount of money spent on Amazon or Tmall. Thus, following hypotheses are proposed:
H6. Trust in online retailers is positively related to consumers’ actual online purchases on Amazon/Tmall.

H6a. Trust in online retailers is positively related to consumers’ online shopping diversity on Amazon/Tmall.

H6b. Trust in online retailers is positively related to consumers’ online shopping frequency on Amazon/Tmall.

H6c. Trust in online retailers is positively related to consumers’ actual amount of money spent on Amazon/Tmall.

This study purports that social inequality and interactivity in consumer review use will predict trust in online retailers and their online purchase amounts. Individual characteristics including online shopping proficiency and household income will be included in the study as control variables because they have been found to be related to trust (Gefen, 2000; Metzger, 2006). The figure below is the research model including the conceptual variables (See Figure 3.3).
Figure 3.3 Research model
CHAPTER IV. METHOD

Overall Research Design

A self-administrated online survey was adopted as the data collection method in this study after comparing the advantages and disadvantages of three primary research methods including surveys, experiments, and content analysis. First of all, this study aims to examine the relative importance of different variables on trust in online retailers instead of the establishing a causal relationship. Secondly, surveys are easier to get a representative sample than experiments. Surveys enable exploring many variables at a time while experiments usually focus on several variables. Respondents’ answers about their own perceptions and experiences in a survey can give marketers and retailers more insights about their actual attitudes and behaviors. In contrast, an experiment is conducted in a controlled environment, so the results may be much different from consumers’ actual experiences. Surveys are more effective in investigating the relationship among people’s perceptions than experiments or content analysis. However, surveys collect the data reported by the respondents. A major disadvantage of the survey is respondents may not remember their past behaviors exactly such as how many years when they have used the Internet. This study focuses on the general perception of different consumers’ online shopping attitudes and behaviors. Only a few questions regarding exact numbers such as asking consumers’ specific amount of online purchases, making this disadvantage less important.
Sampling

The population of this study is online shoppers on Amazon and Tmall since they are the largest B2C (business-to-consumers) online retail websites in the U.S. and China respectively. This study included two equivalent versions of surveys, the English version and Chinese version, to cover consumers in both countries. The difference between Amazon and Tmall is that Amazon sold both its own products and products from third parties whereas Tmall is an e-retail platform for third-party retailers without selling products directly to shoppers, so all retailers on Tmall are third-party retailers. Thus, this study only compared people’s trust in the third-party sellers on Amazon and retailers on Tmall in order to make dependent variables more comparable. Plus, this study chose Tmall instead of Tao Bao (another popular online shopping site) since Tao Bao was a C2C (consumers to consumers) online shopping platform, thus Tmall was more comparable with Amazon since they both were B2C platforms. Besides, compared to college students, choosing online shoppers, in general, makes the results more generalizable to the general population.

Research Procedures

After the researcher designed the survey, the questionnaires and the consent forms were sent to Human Subjects Review Board (HSRB) on January 2015. The researcher made some revisions based on HSRB’s suggestions and the survey received approval on February 2015. A pretest was conducted to improve the survey design. There were 21 college students
in a Northwest Ohio state university who participated in the pretest on April 2015. Extra course credits were offered to encourage participation. A link to the survey on Qualtrics was given to the students. The researcher collected students’ feedbacks after they filled out the survey. The comments were mostly regarding the wording and the length of time to finish the survey. The researcher revised the survey and removed a few questions based on the pre-test result.

For the U.S. sample, the sample on Amazon Mechanical Turk was more representative of the U.S. population than the college students sample or general Internet sample in terms of gender, age, race or education (Paolacci, Chandler, & Ipeirotis, 2010). The database of Amazon Mechanical Turk includes 100,000 users from more than 100 countries who finish tons of tasks per day. After a respondent finishes a survey on Amazon Mechanical Turk, the researcher would accept or reject his/her result based on the survey quality. In order to ensure the result quality, this survey was visible only to U.S. workers with an acceptance rate greater than 95%. The questionnaire was active until all subjects finished it based on a first come, first served basis. $0.50 cash reward was offered to each respondent to encourage them to participate.

A similar process was adopted for the Chinese sample. The online survey was released on a similar online survey platform as Qualtrics in China called Survey Net (https://www.wenjuan.com/). Data were collected by a similar survey data collection
company in China called You Yi Market Survey Inc. The database of this survey company has a large participant pool with different genders, age, income, occupations, ethnicities, and from different cities in China. These subjects in the database were people who would like to fill out online surveys. They were recruited through search engines or online forums. Subjected were selected randomly and contacted through emails or a live chat software with the survey link. In this study, each respondent received RMB 2.5 (about $0.4 dollar) cash reward to encourage them to participate. The questionnaires of Chinese and English versions were listed in the Appendix of the dissertation.

Totally, 563 responses were collected in the U.S. sample and 431 responses were collected in the Chinese sample. The response rate for the U.S. sample and Chinese sample was 100%. After all respondents finished the survey, low-quality responses in which respondents finished the questionnaire less than four minutes or missed more than half of questions unreasonably were excluded from the analysis. Also, respondents who had never purchased on Amazon or Tmall were excluded from the analysis. 58 low-quality or useless responses were excluded in the U.S. sample and 40 low-quality or useless responses were excluded in the Chinese sample. Finally, 446 responses in the U.S. sample and 392 high-quality responses in Chinese sample for the analysis.
Measures

Dependent Variables

Trust in online retailers. Gefen and Straub’s (2003) trust scale was revised to measure trust in online retailers. Gefen and Straub’s (2003) trust scale included three dimensions that are competence, benevolence, and integrity. Competence and integrity were included as two dimensions of cognitive trust while benevolence was not included in this study. Benevolence refers to the extent to which online retailers’ motivation is benign and not harmful. Profits are the crucial motive of most retailers, so benevolence is less important than competence and integrity. Emotional trust was added in the trust scale since emotional trust was related to the relationship’s strength and security (Johnson & Grayson, 2005).

Trust in famous brands. Respondents were asked if they agreed with the following statements: 1) famous brands on Amazon or Tmall are more honest and trustworthy than non-famous brands on Amazon or Tmall; 2) famous brands on Amazon or Tmall have more expertise to meet my demands than non-famous brands on Amazon or Tmall (Competence dimension of cognitive trust); 3) famous brands on Amazon or Tmall care about customers more than non-famous brands on Amazon or Tmall (Emotional trust).

Trust in third-party retailers. Similarly, respondents were asked if they agreed with the following statements: 1) third-party sellers on Amazon or Tmall are more honest and
trustworthy; 2) third-party sellers on Amazon or Tmall have the expertise to meet my
demands; 3) third-party sellers on Amazon or Tmall care about customers.

**Trust in fulfilled third-party retailers.** In the U.S. survey, respondents were asked if
they agreed with the following statements: 1) third-party sellers fulfilled by Amazon are more
honest and trustworthy than third-party sellers that are not fulfilled by Amazon; 2) third-party
sellers fulfilled by Amazon have more expertise to meet my demands than third-party sellers
that are not fulfilled by Amazon; 3) third-party sellers fulfilled by Amazon care about
customers more than third-party sellers that are not fulfilled by Amazon.

In Chinese survey, respondents were asked if they agreed with the following
statements: 1) On Tmall, sellers who guarantee that customers can return products within
seven days regardless of any reason are more honest and trustworthy than those who do not
have this guarantee; 2) On Tmall, sellers who guarantee that customers can return products
within seven days regardless of any reason have more expertise to meet my demands than
those who do not have this guarantee; 3) On Tmall, sellers who guarantee that customers can
return products within seven days regardless of any reason care about customers more than
those who do not have this guarantee.

**Trust in online retailers.** Trust in famous brands, third-party retailers, and fulfilled
online retailers were added as one factor, trust in online retailers.
Online shopping frequency on Amazon/Tmall. Respondents were asked how often they purchased products on Amazon/Tmall annually. A six-point scale was used including Daily, Several times a week, Several times a month, Several times a year, Less than once a year, and Never.

Online shopping diversity on Amazon/Tmall. Based on the product categories on Amazon and Tmall, respondents were asked how many types of products they purchased on Amazon/Tmall including 1) media, entertainment and books; 2) apparel, shoes, and jewelry; 3) electronic and computers; 4) software, apps, and games; 5) health and beauty; 6) home, garden, and tools; 7) sports and outdoors 8) food and groceries; 9) mom, baby & toys; 10) automotive & industrial; 11) luxury goods.

Actual amount of money spent on Amazon/Tmall. Respondents were asked how much money they spent on Amazon/Tmall in one year.

Independent Variables

Social presence. Respondents were asked if they agreed with the following statements when they used Amazon or Tmall: 1) I have a sense of human contact when I read other customers' reviews; 2) I have a sense of sociability when I read other customers' reviews; 3) I have a sense of human warmth when I read other customers' reviews (Gefen & Straub, 2003). A five-point Likert scale was used from Strongly Agree to Strongly Disagree.
**Personalization.** Lee (2005)’s personalization scale was revised to measure personalization. Lee (2005, pp.167) asked respondents if they agreed with the statements that: 1) “This mobile Internet site enables me to order products or service that are tailor-made for me”, (2) “The advertisements and promotions that this mobile Internet site sends to me are tailored to my situation”. In this study, respondents were asked if they agreed the following statements when they read product reviews on Amazon or Tmall: 1) I can get the information I need from other customers' personal product usage experiences; 2) Other customers' reviews can answer my questions about a product or service. A five-point Likert scale was used from *Strongly Agree* to *Strongly Disagree.*

**Playfulness.** Ahn et al. (2007)’s scale was adopted to measure playfulness. All respondents were asked if they agreed with the following statements when they read product reviews on Amazon or Tmall: 1) Reading customer reviews gives enjoyment to me; 2) Reading customer reviews gives fun to me; 3) Reading customer reviews is playful for me. A five-point Likert scale was used from *Strongly Agree* to *Strongly Disagree.*

**Perceived social inequality.** Respondents were asked if they agreed with the following statements: people in the U.S. /China have the same opportunity to 1) be educated; 2) to seek a job; 3) to access health care services; 4) to express their opinions. Also, they were asked if they agreed: 5) people’s income in the U.S. /China correspond to their efforts. A five-point Likert scale was used from *Strongly Agree* to *Strongly Disagree.*
Individualism. Respondents were asked if they agreed with the following statements: 1) I rely on myself most of the time. I rarely relied on others; 2) I am unique and different from others in many respects (Triandis & Gelfand, 1998). A five-point Likert scale was used from Strongly Agree to Strongly Disagree.

Collectivism. Based on the scale of Triandis and Gelfand, (1998), respondents were asked if they agreed with the following statements: 1) Parent and children must stay together as much as possible; 2) It is my duty to take care of my family, even when I need to sacrifice what I want. A five-point Likert scale was used from Strongly Agree to Strongly Disagree.

Power distance. Yoo et al.’s (2011) measurement of power distance was adopted. Respondents were asked if they agreed with the following statements: 1) People in higher positions should not ask the opinions of people in lower positions too frequently; 2) People in higher positions should avoid social interaction with people in lower positions; 3) People in lower positions should not disagree with decisions by people in higher positions. A five-point Likert scale was used from Strongly Agree to Strongly Disagree.

Mediator

Tmall involvement. Respondents were asked how many following activities they were involved on Tmall including 1) searching and read product information; 2) comparing products and alternatives; 3) posting product reviews on Amazon/Tmall; 4) getting Tmall deals through emails; 5) linking bank account or credit card to Tmall; 6) following Tmall
retailers on social media; 7) sharing my Tmall shopping experiences with friends or families on my social media; 8) getting Tmall deals on social media; 9) using Alipay.

**Implementation**

A total of 446 people participated in the U.S. survey and 392 people participated in China’s survey from July 11th to October 31th, 2015. It took about four months to collect the data. All the data were saved in the author’s laptop to keep privacy. The two countries’ data were run separately using the SPSS software to examine the relationship between independent variables and dependent variables. Then the two datasets were combined to compare the differences and similarities in attitudes and behaviors between the U.S and Chinese consumers. Finally, mediation effect was tested by AMOS.
CHAPTER V. RESULTS

In this chapter, descriptive and explanatory analysis results of American and Chinese samples are presented, including sample demographic profiles, online shopping behaviors, descriptive statistics of key variables, and hypotheses tests.

Demographic Profile of Samples

U.S. Sample

There were 446 U.S. respondents who participated in this study, among which 47.3% of them were males ($N=211$) and 52.7% were females ($N=235$) (Table 5.1). The average age was 34.7 ($SD=11.5$). Most respondents had a bachelor’s degree. Among 427 respondents who reported their educational levels, 0.5% finished primary school ($N=2$), 0.7% finished junior high school ($N=3$), 11.2% graduated from high school ($N=48$), 29.0% finished 1 to 3 years of college ($N=124$), 38.9% had a bachelor’s degree ($N=166$), 18.7% had a master’s degree ($N=80$), and 0.9% had doctoral degree ($N=4$). Among 437 respondents who reported their occupations, 27.9% were professionals, technicians or artists ($N=122$), 2.5% were government officials ($N=11$), 7.8% were managers ($N=34$), 9.4% were business workers ($N=41$), 13.7% ($N=60$) were clerks or administrative staffs, 2.5% were industrial workers ($N=11$), 7.8% were homemakers ($N=34$), 1.6% were laborers ($N=7$), 0.5% were farmers ($N=2$), 8.5% ($N=41$) were students, 11.9% were self-employed ($N=52$), and 5.9% were unemployed ($N=26$). As Table 5.2 showed, there were 58.1% Caucasians ($N=259$), 29.4%
Asians \((N=131)\), 5.2\% African Americans \((N=23)\), 4.7\% Hispanics \((N=21)\), 0.9\% Native Americans \((N=4)\), and 1.8\% people with other ethnicities \((N=8)\). Among 446 respondent who reported their annual household income before tax, 32.7\% \((N=146)\) reported “under US$30,000”, 32.1\% \((N=143)\) reported “$30000- $60000”, 22.4\% \((N=100)\) reported “$60,001- $90,000”, 9.0\% \((N=40)\) reported “$90,000- $150,000”, 3.6\% \((N=16)\) reported

Table 5.1

Demographic Profiles of U.S., Chinese, and Total Samples

<table>
<thead>
<tr>
<th></th>
<th>U.S. sample ((N=446)) (Percentage, N)</th>
<th>China sample ((N=392)) (Percentage, N)</th>
<th>Total sample ((N=838)) (Percentage, N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>47.3% (211)</td>
<td>54.6% (214)</td>
<td>50.7% (425)</td>
</tr>
<tr>
<td>Female</td>
<td>52.7% (235)</td>
<td>45.4% (178)</td>
<td>49.3% (413)</td>
</tr>
<tr>
<td>Age ((N,SD))</td>
<td>34.7</td>
<td>27.4 (392,5.3)</td>
<td>31.3</td>
</tr>
<tr>
<td></td>
<td>((446,11.5))</td>
<td></td>
<td>((838,9.9))</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 8 or less</td>
<td>0.5% (2)</td>
<td>5.4% (21)</td>
<td>2.8% (23)</td>
</tr>
<tr>
<td>Grade 9-11</td>
<td>0.7% (3)</td>
<td>8.7% (34)</td>
<td>4.5% (37)</td>
</tr>
<tr>
<td>High School or equivalent</td>
<td>11.2% (48)</td>
<td>10.3% (40)</td>
<td>10.8% (88)</td>
</tr>
<tr>
<td>1 to 3 years of college</td>
<td>29.0% (124)</td>
<td>15.4% (60)</td>
<td>22.5% (184)</td>
</tr>
<tr>
<td>4-year Bachelor's degree</td>
<td>38.9% (166)</td>
<td>44.4% (173)</td>
<td>41.5% (339)</td>
</tr>
<tr>
<td>Master degree</td>
<td>18.7% (80)</td>
<td>10.3% (40)</td>
<td>14.7% (120)</td>
</tr>
<tr>
<td>Doctorate degree</td>
<td>0.9% (4)</td>
<td>5.6% (22)</td>
<td>3.2% (26)</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional/technician/artist</td>
<td>27.9% (122)</td>
<td>14.4% (56)</td>
<td>21.6% (178)</td>
</tr>
<tr>
<td>Government officials</td>
<td>2.5% (11)</td>
<td>8.8% (34)</td>
<td>5.5% (45)</td>
</tr>
<tr>
<td>Manager/Owner</td>
<td>7.8% (34)</td>
<td>5.7% (22)</td>
<td>6.8% (56)</td>
</tr>
<tr>
<td>Business/sales</td>
<td>9.4% (41)</td>
<td>5.2% (20)</td>
<td>7.4% (61)</td>
</tr>
<tr>
<td>Clerks/administration</td>
<td>13.7% (60)</td>
<td>22.7% (88)</td>
<td>17.9% (148)</td>
</tr>
<tr>
<td>Industrial worker</td>
<td>2.5% (11)</td>
<td>2.8% (11)</td>
<td>2.7% (22)</td>
</tr>
</tbody>
</table>
Table 5.2
Race and Income of U.S. and Chinese Samples

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>U.S. (Percentage, N)</th>
<th>China (Percentage, N)</th>
<th>Total sample (Percentage, N)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N=446)</td>
<td>(N=392)</td>
<td>(N=838)</td>
</tr>
<tr>
<td>Homemaker</td>
<td>7.8% (34)</td>
<td>3.1% (12)</td>
<td>5.6% (46)</td>
</tr>
<tr>
<td>Laborer</td>
<td>1.6% (7)</td>
<td>3.9% (15)</td>
<td>2.7% (22)</td>
</tr>
<tr>
<td>Farmer</td>
<td>0.5% (2)</td>
<td>2.6% (10)</td>
<td>1.5% (12)</td>
</tr>
<tr>
<td>Student</td>
<td>8.5% (37)</td>
<td>15.2% (59)</td>
<td>11.6% (96)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>5.9% (26)</td>
<td>9.8% (38)</td>
<td>7.8% (64)</td>
</tr>
<tr>
<td>Self-employed</td>
<td>11.9% (52)</td>
<td>5.9% (23)</td>
<td>9.1% (75)</td>
</tr>
</tbody>
</table>

“$150,000- $300,000”, and 0.2% (N=1) reported “more than $300,000”.

Chinese Sample

There were 392 Chinese people who participated in this study, among which 54.6% of them were males (N=214) and 45.4% were females (N=178) (Table 5.1). The average age was 27.4 (SD=5.3). Among 390 respondents who reported their educational levels, 5.4%
finished primary school ($N=21$), 8.7% finished junior high school ($N=34$), 10.3% graduated from high school ($N=40$), 15.4% finished 1 to 3 years of college ($N=60$), 44.4% had a bachelor’s degree ($N=173$), 10.3% had a master’s degree ($N=40$), and 5.6% had a doctoral degree ($N=22$). Among 388 respondents who reported their occupations, 14.4% were professionals, technicians or artists ($N=56$), 8.8% were government officials ($N=34$), 5.7% were managers ($N=22$), 5.2% were business workers ($N=20$), 22.7% were clerks or administrative staffs ($N=88$), 2.8% were industrial workers ($N=11$), 3.1% were homemakers ($N=12$), 3.9% were laborers ($N=15$), 2.6% were farmers ($N=10$), 15.2% were students ($N=59$), 5.9% were self-employed ($N=23$), and 9.8% were unemployed ($N=38$). As Table 5.2 showed, most Chinese participants (96.4%; $N=378$) belonged to Han ethnic group while a few of them (3.6%; $N=14$) belonged to other ethnic groups such as Miao, Zhuang, Man, etc. This is similar to the Chinese population distribution of ethnic groups. Among 390 respondent who reported their annual household income before tax, 16.4% ($N=64$) reported “under RMB 30000 ($4615$)”, 26.3% ($N=103$) reported “RMB30000- RMB 50000” ($4615$-$7692$), 36.8% ($N=144$) reported “RMB50,000- RMB 100,000” ($7692$-$15,385$), 18.9% ($N=74$) reported “RMB100,000- RMB 300,000” ($15,385$-$46,154$), 0.8% ($N=3$) reported “RMB300,000- RMB 500,000” ($46,154$-$76923$), and 0.5% ($N=2$) reported “more than RMB500,000 ($76923$)”. 


Hence, comparing the U.S. and Chinese Samples, the U.S. sample had a higher percentage of female and older participants, a higher percentage of low income groups, and ethnic minority groups. On the other hand, Chinese sample had a higher percentage of male participants, higher education and higher income groups, and a lower percentage of ethnic minorities.

**Total Sample**

As Table 5.1 showed, totally, there were 838 participants in this study, among which 50.7% of them were males (N=425) and 49.3% were females (N=413). The average age was 31.3 (SD=9.9). Among 817 respondents who reported their educational levels, 2.8% finished primary school (N=23), 4.5% finished junior high school (N=37), 10.8% graduated from high school (N=88), 22.5% finished 1 to 3 years of college (N=184), 41.5% had bachelor’s degree (N=339), 14.7% had master’s degree (N=120), and 3.2% obtained doctoral degree (N=26). Among 825 respondent who reported their occupations, 21.6% were professionals, technicians or artists (N=178), 5.5% were government officials (N=45), 6.8% were managers (N=56), 7.4% were business workers (N=61), 17.9% were clerks or administrative staffs (N=148), 2.7% were industrial workers (N=22), 5.6% were homemakers(N=46), 2.7% were laborers (N=22), 1.5% were farmers (N=12), 11.6% were students (N=96), 9.1% were self-employed (N=75), and 7.8% were unemployed (N=64).
Chines Internet penetration rate was 52.5% whereas American Internet penetration rate was 88.6% (Internet Live Stats, 2016). Thus, in terms of demographics, it was appropriate to compare U.S. sample with U.S. population and Chinese sample with Chinese general Internet users.

As Table 5.3 showed, comparing the U.S. sample in this study with U.S. general population (U.S. Census., 2014), there were more young, female, low-income, and well-educated participants and minorities in this study. There were 61.2% of U.S. respondents who aged from 18 to 34 whereas only 28.2% of U.S. Internet users fell in this age group. There were slightly more female participants in the U.S. sample (52.7% females) than the U.S. population (50.8% females). There were more minorities in U.S. sample (41.9%) than the U.S. population (22.6%). Especially, there were more Asian Americans in the U.S. sample (29.4%) than the U.S. population (5.4%). The percentage of medium or low income group was higher in the U.S. sample (64.8%, <=$60,000) than the U.S. population (54.2%, <=$60,000). There were more well-educated participants in the U.S. sample compared to the U.S. population. Participant in the U.S. sample who had a bachelor degree or higher accounted for 58.5% compared to 29.3% in the U.S. population.


Table 5.3

Comparison of The U.S. Sample and U.S. Population

<table>
<thead>
<tr>
<th></th>
<th>U.S. Sample (N=446)</th>
<th>U.S. Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>47.3% (211)</td>
<td>49.2%</td>
</tr>
<tr>
<td>Females</td>
<td>52.7 (235)</td>
<td>50.8%</td>
</tr>
</tbody>
</table>

Race

- White: 58.1% (259) vs. 77.4%
- African American: 5.2% (23) vs. 13.2%
- Hispanic: 4.7% (21) vs. 17.4%
- Asian: 29.4% (131) vs. 5.4%
- Native American: 0.9% (4) vs. 0.2%

Household income

- < US$30,000: 32.7% (146) vs. 28.6%
- $30,001~$60,000: 32.1% (143) vs. 25.6%
- $60,001~$90,000: 22.4% (100) vs. 17.1%
- $90,001~$15,000: 9.0% (40) vs. 16.6%
- > $150,000: 3.8% (17) vs. 11.3%

Education

- High School or higher: 98.8% (441) vs. 86.3%
- Bachler or higher: 58.5% (261) vs. 29.3%

Internet users' age

- 18–24: 15.2% (68) vs. 9.8%
- 25–34: 46.0% (205) vs. 18.4%
- 35–44: 20.2% (90) vs. 17.9%
- 45–54: 9.6% (43) vs. 19.7%
- >=55: 9.0% (40) vs. 25.6%


Comparing Chinese sample in this study with Chinese general Internet users (China Internet Network Information Center, 2016), there were more young, male, high-income, and well-educated participants in this study (Table 5.4). There was 72.9% of Chinese respondents who were younger than 29 whereas only 54% of Chinese Internet users fell in this age group. There were fewer teenagers (younger than 19, 3.3%) and older adults (older than 50, 0.5%) in Chinese sample than in the general Internet users (24.1%, 9.2%). There were more males in
Chinese sample (54.6% males) than the Chinese general Internet users (53.6% males). There were fewer minorities in Chinese sample (3.6%) than Chinese general population (9.4%) (National Statistical Bureau, 2010). There were 57.3% of Chinese participants whose household income was higher than RMB50,000 compared to 39.9% in Chinese general Internet users. Participant in the Chinese sample who had a bachelor degree or higher accounted for 60.2% compared to 19.6% in the Chinese population.

Table 5.4

<table>
<thead>
<tr>
<th></th>
<th>Chinese sample (N=392)</th>
<th>Chinese General Internet Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet users’ age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;=19</td>
<td>3.3% (13)</td>
<td>24.1%</td>
</tr>
<tr>
<td>19~29</td>
<td>69.6% (273)</td>
<td>29.9%</td>
</tr>
<tr>
<td>30~39</td>
<td>23.5% (92)</td>
<td>23.8%</td>
</tr>
<tr>
<td>40~49</td>
<td>3.1% (12)</td>
<td>13.1%</td>
</tr>
<tr>
<td>&gt;=50</td>
<td>0.5% (2)</td>
<td>9.2%</td>
</tr>
<tr>
<td>Males</td>
<td>54.6% (214)</td>
<td>53.6%</td>
</tr>
<tr>
<td>Household income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;=RMB50,000</td>
<td>42.7% (167)</td>
<td>60.1%</td>
</tr>
<tr>
<td>&gt;RMB50,001</td>
<td>57.3% (225)</td>
<td>39.9%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School or higher</td>
<td>85.9% (337)</td>
<td>48.8%</td>
</tr>
<tr>
<td>Bachler or higher</td>
<td>60.2% (236)</td>
<td>19.6%</td>
</tr>
<tr>
<td>Population Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Han</td>
<td>96.4% (378)</td>
<td>91.6%</td>
</tr>
<tr>
<td>Minority</td>
<td>3.6% (14)</td>
<td>9.4%</td>
</tr>
</tbody>
</table>

Source: China Internet Network Information Center, 2016.

Descriptive Statistics of Online Shopping Behaviors

Online Shopping Behaviors

The U.S. consumers had a longer history of using the Internet and online shopping than China’s customers (Table 5.5). On average, U.S. consumers had used the Internet for
13.7 years ($SD=5.5$) while China’s consumers had used the Internet for 8.5 years ($SD=3.4$), $t(751) = 16.6, p<.001, d=1.12$. The effect size, Cohen’s $d$, measures the size of the difference. Cohen (1992) suggested that an effect size $d=0.2$ represents a small effect size, $0.5$ represents a moderate effect size and $0.8$ could be considered as a high effect size. Cohen’s effect size value ($d = 1.12$) suggested a high practical significance. The U.S. consumers had purchased online for 8.1 years ($SD=4.7$) whereas China’s consumers had shopped online for 4.8 years ($SD=2.3$), $t(666) = 13.1, p<.001, d=.87$. Cohen’s effect size value ($d = .87$) suggested a high practical significance (Cohen, 1992). However, China’s online shoppers spent more money online relative to their income than U.S. consumers. On average, U.S. consumers spent $3,094 online ($SD=$8,812) whereas Chinese customers spent RMB5,680 online ($SD=$ RMB 6,681) per year, $t(836) = -4.7, p<.001, d= -.33$. Cohen’s effect size value ($d = -.33$) suggested a small practical significance (Cohen, 1992). China’s consumers spent more money online relative to their income than U.S. consumers. U.S. respondents’ medium household income was $50,000 while China’s respondents’ medium household income was RMB 60,000. If the money spent online was divided by the median income, China’s consumers spent 9.5% of their annual income online while U.S. consumers spent 6.2% of their annual income per year.
Table 5.5

<table>
<thead>
<tr>
<th></th>
<th>US (Mean, SD) (N=446)</th>
<th>China (Mean, SD) (N=392)</th>
<th>t for T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of using the Internet</td>
<td>13.7 (5.5)</td>
<td>8.5 (3.4)</td>
<td>t = 16.6***</td>
</tr>
<tr>
<td>Years of shopping online</td>
<td>8.1 (4.7)</td>
<td>4.8 (2.3)</td>
<td>t = 13.1***</td>
</tr>
<tr>
<td>Annual median Income</td>
<td>$50,000</td>
<td>RMB60,000</td>
<td></td>
</tr>
<tr>
<td>Money spent online</td>
<td>$3,094 ($8,812)</td>
<td>RMB5,680 (RMB 6,681)</td>
<td></td>
</tr>
<tr>
<td>Shopping/median income</td>
<td>6.2%</td>
<td>9.5%</td>
<td></td>
</tr>
</tbody>
</table>

***P<.001, **P<.01, *P<.05, n.s. not significant

Overall, Chinese respondents (M=4.3, SD=2.0) perceived more types of risks when purchasing online than the U.S. respondents (M=3.7, SD=2.0), t (829) = -3.8, p < .001 (Table 5.6). The risks the U.S. respondents were worried most were the consistency of products and pictures (59.6%, N=266), the convenience of returning products and getting a refund (59.6%, N=266), receiving products in time (55.6%, N=248), and damaged products (53.4%, N=238).

On the other hand, the risks Chinese respondents were worried most the consistency of the product and the picture (82.7%, N=324), counterfeits (70.2%, N=275), damaged products (55.1%, N=216), and fake product reviews (50.3%, N=197).

Chi-square was performed to compare the percentage of respondents who perceive different risks in the U.S. and Chinese sample. As Table 5.6 showed, Chinese respondents had a higher concern about counterfeits (82.7% vs. 59.6%, p < .001), fake product reviews (50.3% vs. 39.0%, p = .001), and the consistency of products and pictures (82.7% vs. 59.6%, p < .001) than the U.S. respondents. Also, compared to the U.S. respondents (31.1%, N=143),
Chinese respondents (37.6%, \(N=147\)) were more likely to concern they could not receive the product and lose money, \(C^2 (1, \ N = 838) = 2.8, p=.01\). In contrast, the U.S. respondents (59.6%, \(N=266\)) had a higher concern about that returning or replacing products were inconvenient or they could not get refunds than Chinese respondents (44.9%, \(N=176\), \(C^2 (1, \ N = 838) =18.2, p=.001\)). Also, the U.S. respondents were more likely to worry about that they could not receive products in time (55.6% vs. 39.3%, \(p<.001\)) or the website was difficult to use (15.9% vs. 9.9%, \(p=.007\)) than Chinese respondents. In terms of the privacy (35.4% vs. 36.7%, \(p=n.s.\)) and the risk of receiving damaged products (53.4% vs. 55.1%, \(p=n.s.\)), there was no significant difference between the U.S. respondents and Chinese ones.

Table 5.6
Overall Perceived Online Shopping Risks

<table>
<thead>
<tr>
<th>Risks</th>
<th>U.S. 446</th>
<th>China 392</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall online Shopping Risks</td>
<td>3.7 (2.0)</td>
<td>4.3(2.0)</td>
<td>-3.8***</td>
</tr>
<tr>
<td>Products doesn’t look like the picture</td>
<td>59.6% (266)</td>
<td>82.7% (324)</td>
<td>53.0***</td>
</tr>
<tr>
<td>Receive counterfeits</td>
<td>22.9% (102)</td>
<td>70.2% (275)</td>
<td>188.5***</td>
</tr>
<tr>
<td>Fake product reviews</td>
<td>39.0% (174)</td>
<td>50.3% (197)</td>
<td>10.7***</td>
</tr>
<tr>
<td>Don’t revive products and lose money</td>
<td>31.1% (143)</td>
<td>37.6%(147)</td>
<td>2.8*</td>
</tr>
<tr>
<td>Returning or replacing products is inconvenient and can’t get refund</td>
<td>59.6% (266)</td>
<td>44.9% (176)</td>
<td>18.2***</td>
</tr>
<tr>
<td>Can’t receive products in time</td>
<td>55.6% (248)</td>
<td>39.3% (154)</td>
<td>22.3***</td>
</tr>
<tr>
<td>Website is difficult to use</td>
<td>15.9% (71)</td>
<td>9.9% (39)</td>
<td>6.5**</td>
</tr>
<tr>
<td>Receive damaged products or products that are not I ordered</td>
<td>53.4% (238)</td>
<td>55.1% (216)</td>
<td>.3(n.s.)</td>
</tr>
<tr>
<td>Privacy</td>
<td>35.4% (158)</td>
<td>36.7% (144)</td>
<td>.2(n.s.)</td>
</tr>
</tbody>
</table>

***\(P<.001\), **\(P<.01\), *\(P<.05\), n.s. not significant

Overall, the U.S. respondents (\(M=6.0, SD=2.0\)) perceived more different benefits of online shopping than Chinese respondents (\(M=4.1, SD=2.0\), \(t (814) =14.0, p<.00, d=.95\))
Cohen’s effect size value \((d = .95)\) suggested a big difference (Cohen, 1992). The most important benefits of online shopping for both the U.S. and Chinese respondents were convenience and easiness (94.8\% vs. 85.7\%, \(p<.001\)) and better prices (83.4\% vs. 70.9\%, \(p<.001\)). Time-saving (84.5\% vs. 4.3\%, \(p<.001\)), availability of searching product information and comparison (79.4\% vs. 37.2\%, \(p<.001\)), product diversity (60.1\% vs. 5.6\%, \(p=.03\)), and availability of product reviews (80.9\% vs. 14.5\%, \(p<.001\)) were more important for the U.S. respondents than Chinese ones. On the other hand, purchasing certain products without embarrassment (37.2\% vs. 27.1\%, \(p=.001\)) and enjoying online shopping experiences (35.2\% vs. 25.1\%, \(p=.001\)) were more important for Chinese respondents than the U.S. ones.

There was no difference of avoiding crowds between the U.S. respondents (66.4\%, \(N=296\)) and Chinese ones (70.2\%, \(N=275\)), \(C^2 (1, N = 838) = 1.4, p=n.s.\)

Table 5.7

<table>
<thead>
<tr>
<th>Overall Perceived Online Shopping Benefits</th>
<th>U.S. (446)</th>
<th>China (392)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Online Shopping Benefits</td>
<td>6.0 (2.0)</td>
<td>4.1 (2.0)</td>
<td>14.0***</td>
</tr>
<tr>
<td>It is convenient and easy</td>
<td>94.8% (423)</td>
<td>85.7% (336)</td>
<td>20.4***</td>
</tr>
<tr>
<td>I can avoid crowds</td>
<td>66.4% (296)</td>
<td>70.2% (275)</td>
<td>1.4(n.s.)</td>
</tr>
<tr>
<td>I get cheap deals and better prices.</td>
<td>83.4% (372)</td>
<td>70.9% (278)</td>
<td>18.7***</td>
</tr>
<tr>
<td>I can buy various products or products all over the world.</td>
<td>60.1% (268)</td>
<td>53.6% (210)</td>
<td>3.6*</td>
</tr>
<tr>
<td>I can search product information and compare products or price.</td>
<td>79.4% (354)</td>
<td>37.2% (146)</td>
<td>153.9***</td>
</tr>
<tr>
<td>I can buy certain type of products without the embarrassment</td>
<td>27.1% (121)</td>
<td>37.2% (146)</td>
<td>9.8***</td>
</tr>
<tr>
<td>It saves my time.</td>
<td>84.5% (377)</td>
<td>4.3% (17)</td>
<td>538.6***</td>
</tr>
<tr>
<td>It enjoy the online shopping trip for its own sake, not just for the items I may purchase.</td>
<td>25.1% (112)</td>
<td>35.2% (138)</td>
<td>10.2***</td>
</tr>
</tbody>
</table>
I can read customers' product reviews to make a purchase decision.

$80.9\% \text{ (361)}$, $14.5\% \text{ (57)}$, $367.9**$

***$P<.001$, **$P<.01$, *$P<.05$, n.s. not significant

Heavy consumers were defined as those who shop online daily or several times a week (Table 5.8). Compared to U.S. heavy online consumers, there were more Chinese heavy consumers who made online purchases on desktops ($49.5\% \text{ vs.} 42.3\%$), laptops ($47.9\% \text{ vs.} 45.6\%$), and smartphones ($62.2\% \text{ vs.} 39.9\%$). On the other hand, there were more U.S. heavy online consumers who made online purchases on other new digital devices such as game consoles ($12.2\% \text{ vs.} 5.3\%$) and smart TVs ($13.7\% \text{ vs.} 11.0\%$). The percentage of heavy consumers who purchased on e-book readers ($11.4\% \text{ vs.} 10.9\%$) and tablets ($25.4\% \text{ vs.} 24.8\%$) were similar in the U.S. and China.

Table 5.8

<table>
<thead>
<tr>
<th>Device</th>
<th>Shopping Frequency</th>
<th>US (N=446)</th>
<th>China (N=392)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktops</td>
<td>Daily</td>
<td>24.4% (N=109)</td>
<td>23.0% (N=90)</td>
</tr>
<tr>
<td></td>
<td>Several times a week</td>
<td>17.9% (N=80)</td>
<td>26.5% (N=104)</td>
</tr>
<tr>
<td>Laptops</td>
<td>Daily</td>
<td>20.9% (N=93)</td>
<td>23.2% (N=91)</td>
</tr>
<tr>
<td></td>
<td>Several times a week</td>
<td>24.7% (N=110)</td>
<td>24.7% (N=97)</td>
</tr>
<tr>
<td>Smartphone</td>
<td>Daily</td>
<td>25.3% (N=113)</td>
<td>36.2% (N=142)</td>
</tr>
<tr>
<td></td>
<td>Several times a week</td>
<td>14.6% (N=65)</td>
<td>26.0% (N=102)</td>
</tr>
<tr>
<td>Tablets</td>
<td>Daily</td>
<td>12.6% (N=56)</td>
<td>10.5% (N=41)</td>
</tr>
<tr>
<td></td>
<td>Several times a week</td>
<td>12.8% (N=57)</td>
<td>14.3% (N=56)</td>
</tr>
<tr>
<td>Portable e-book readers</td>
<td>Daily</td>
<td>5.6% (N=25)</td>
<td>4.8% (N=19)</td>
</tr>
<tr>
<td></td>
<td>Several times a week</td>
<td>5.8% (N=26)</td>
<td>6.1% (N=24)</td>
</tr>
<tr>
<td>Game consoles</td>
<td>Daily</td>
<td>5.2% (N=23)</td>
<td>2.0% (N=8)</td>
</tr>
<tr>
<td></td>
<td>Several times a week</td>
<td>7.0% (N=31)</td>
<td>3.3% (N=13)</td>
</tr>
<tr>
<td>Smart TVs</td>
<td>Daily</td>
<td>7.2% (N=32)</td>
<td>5.1% (N=20)</td>
</tr>
<tr>
<td></td>
<td>Several times a week</td>
<td>6.5% (N=29)</td>
<td>5.9% (N=23)</td>
</tr>
</tbody>
</table>

In terms of the most important factor for online purchase divisions, a single choice question was asked. It explained why these numbers were relative low. It was surprising that
there were more respondents from China (42.9%, \(N=168\)) who believed product quality was the most important factor for their online purchase decisions compared to U.S. consumers (27.4%, \(N=122\)) (Table 5.9). In contrast, there were more U.S. consumers (39.7%, \(N=177\)) who believed the cost was the most important factor for their online purchase decisions compared to China’s consumers (15.8%, \(N=58\)). Product design, friends’ recommendation, and brand reputation were more critical for China’s consumers than U.S. consumers. The percentages of Chinese consumers who believed product design (4.8% vs. 1.3%), friends’ recommendation (5.1% vs. 1.3%), and brand reputation (5.6% vs. 3.1%) were the most important factor for their online purchase decisions were much higher than that of U.S. consumers. In contrast, website usability (1.8% vs. 0.3%) and finishing the shopping process in a short time (2.9% vs. 0.5%) played a more important role in U.S. consumers’ online purchase decisions than China’s consumers. It was important to note product reviews play quite an important role in the purchase decision. It was mentioned third most frequently as an the important decision factor in both U.S. and Chinese samples. Hence this study’s focus on the interactivity of product reviews was particularly relevant.
Table 5.9
Most Important Factor for Online Purchase Decisions

<table>
<thead>
<tr>
<th>Most important factor for online purchase decision</th>
<th>U.S. (N=446)</th>
<th>China (N=392)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>27.4% (N=122)</td>
<td>42.9% (N=168)</td>
</tr>
<tr>
<td>Cost</td>
<td>39.7% (N=177)</td>
<td>15.8% (N=62)</td>
</tr>
<tr>
<td>Design and style</td>
<td>1.3% (N=6)</td>
<td>4.8% (N=19)</td>
</tr>
<tr>
<td>My past experiences</td>
<td>6.7% (N=30)</td>
<td>7.4% (N=29)</td>
</tr>
<tr>
<td>Customers’ product reviews</td>
<td>11.0% (N=49)</td>
<td>13.3% (N=52)</td>
</tr>
<tr>
<td>Website usability</td>
<td>1.8% (N=8)</td>
<td>0.3% (N=1)</td>
</tr>
<tr>
<td>Friends or families’ recommendation</td>
<td>1.3% (N=6)</td>
<td>5.1% (N=20)</td>
</tr>
<tr>
<td>Finish purchase in a short time</td>
<td>2.9% (N=13)</td>
<td>0.5% (N=2)</td>
</tr>
<tr>
<td>Customer service quality</td>
<td>4.7% (N=21)</td>
<td>4.3% (N=17)</td>
</tr>
<tr>
<td>Brand reputation</td>
<td>3.1% (N=14)</td>
<td>5.6% (N=22)</td>
</tr>
</tbody>
</table>

Online Shopping Behaviors on Amazon and Tmall

The money Chinese consumers spent on Tmall relative to their income was more than that the U.S. consumers spent on Amazon. The U.S. respondents spent $2,157.5 (SD=$6,009.0) on Amazon per year whereas Chinese respondents spent RMB3, 755.1 (SD=RMB4, 895.6) on Tmall per year, $t(835) = -4.2, p<.001, d= -.29$ (Table 5.10). Cohen’s effect size value ($d = -.29$) suggested a moderate difference (Cohen,1992). If the money spent on Amazon/Tmall was divided by the median income (U.S.: $50,000, China: RMB60, 000), Chinese respondents spent 6.3% of their annual income on Tmall while U.S. respondents spent 4.3% of their annual income on Amazon per year.

In terms of product types (Table 5.10), high-involvement products were products that were expensive and involved more risks and careful consideration such as electronic products. Low-involvement products were products that were low-cost and involved fewer...
risks and consideration such as books or clothes. The U.S. consumers purchased more high-involvement products on Amazon \((M=.9, SD=.7)\) than Chinese shoppers on Tmall \((M=.5, SD=.6)\), \(t(834) =8.5, p<.001, d=.61\). Cohen’s effect size value \((d = .61)\) suggested a moderate difference (Cohen, 1992). However, there was no significant difference between consumers in the two countries in terms of purchases of low-involvement products (e.g., books, clothes) on Amazon or Tmall, \(t(834) = -.1, p=n.s.\) The most popular products on Amazon were electronic products (65.5%), media products and books (62.8%), and health and beauty products (46.4%). In contrast, the most popular products on Tmall were apparel, shoes, and jewelry (85.2%), tools for homes and gardens (47.3%), and food and groceries (39.9%). There were much less Chinese consumers who purchased luxury goods on Tmall (3.1%) compared to Amazon consumers (12.1%).

Table 5.10

<table>
<thead>
<tr>
<th>Product types</th>
<th>Amazon ((N=446))</th>
<th>Tmall ((N=391))</th>
<th>(t)-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media, entertainment &amp; books</td>
<td>62.8% ((N=280))</td>
<td>29.9% ((N=117))</td>
<td></td>
</tr>
<tr>
<td>Apparel, Shoes &amp; Jewelry</td>
<td>45.3% ((N=202))</td>
<td>85.2% ((N=333))</td>
<td></td>
</tr>
<tr>
<td>Electronic &amp; Computers</td>
<td>65.5% ((N=292))</td>
<td>38.4% ((N=150))</td>
<td></td>
</tr>
<tr>
<td>Software, Apps &amp; Games</td>
<td>31.4% ((N=140))</td>
<td>16.4% ((N=64))</td>
<td></td>
</tr>
<tr>
<td>Health &amp; Beauty</td>
<td>46.4% ((N=207))</td>
<td>21% ((N=83))</td>
<td></td>
</tr>
<tr>
<td>Home, Garden &amp; Tools</td>
<td>30.3% ((N=135))</td>
<td>47.3% ((N=185))</td>
<td></td>
</tr>
<tr>
<td>Sports &amp; Outdoors</td>
<td>20.2% ((N=90))</td>
<td>21.7% ((N=85))</td>
<td></td>
</tr>
<tr>
<td>Food &amp; Groceries</td>
<td>19.7% ((N=88))</td>
<td>39.9% ((N=156))</td>
<td></td>
</tr>
<tr>
<td>Mom, Baby &amp; Toys</td>
<td>20.0% ((N=89))</td>
<td>15.9% ((N=62))</td>
<td></td>
</tr>
<tr>
<td>Automotive &amp; Industrial</td>
<td>9.9% ((N=44))</td>
<td>6.4% ((N=25))</td>
<td></td>
</tr>
<tr>
<td>Luxury goods</td>
<td>12.1% ((N=54))</td>
<td>3.1% ((N=12))</td>
<td></td>
</tr>
</tbody>
</table>
### Chi-square was performed to compare consumers’ behaviors on Amazon and Tmall (Table 5.11).

- **High-involvement product purchases on Amazon/Tmall**
  - 0.9 (0.7) vs. 0.5 (0.6)
  - $t = 8.5^{***}$

- **Low-involvement product purchases on Amazon/Tmall**
  - 2.7 (1.7) vs. 2.8 (1.5)
  - $t = -1^{(n.s.)}$

---

Among all U.S. respondents, 37.7% of them were Amazon Prime members who had two-day free shipping and exclusive offers such as accessing Amazon Video and Music.

In contrast, there was no similar membership service like Amazon Prime on Tmall. There were more U.S. consumers who searched and read product information on Amazon (89.9%) compared to Tmall consumers (63.2%), $C^2 (1, N = 837) = 85.2, p < .001$. However, more Chinese consumers posted product reviews on Tmall (55.2%) than Amazon consumers (34.3%), $C^2 (1, N = 837) = 37.1, p < .001$. There were more U.S. consumers (27.1%) who shared their Amazon shopping experiences on social media than Chinese consumers (15.6%), $C^2 (1, N = 837) = 16.3, p < .001$. In terms of the online payment method, more than half Amazon (64%) and Tmall shoppers (60%) linked their accounts with their bank accounts or credit cards, $C^2 (1, N = 837) = 1.3, p = n.s.$ Most Tmall consumers (75.2%) used Alipay, the internal payment system developed by Tmall. The percentage of consumers who accessed deals on social media was similar among Amazon (21.3%) and Tmall shoppers (20.7%), $C^2 (1, N = 837) = 0.4, p = n.s.$ However, more U.S. consumers (37.4%) accessed deal by emails than China’s consumers (10.0%), $C^2 (1, N = 837) = 84.7, p < .001$. 

---

**Note:** $***P < .001$, **$P < .01$, *$P < .05$, n.s. not significant
Table 5.11  
*Online Shopping Behaviors on Amazon and Tmall*

<table>
<thead>
<tr>
<th>Behaviors</th>
<th>Amazon (N=446)</th>
<th>Tmall (N=392)</th>
<th>Chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>I search and read product information</td>
<td>89.9% (N=401)</td>
<td>63.2% (N=247)</td>
<td>85.2***</td>
</tr>
<tr>
<td>I compare products and alternatives</td>
<td>83.6% (N=373)</td>
<td>79.0% (N=309)</td>
<td>2.9*</td>
</tr>
<tr>
<td>I post product reviews on Amazon</td>
<td>34.3% (N=153)</td>
<td>55.2% (N=216)</td>
<td>37.1***</td>
</tr>
<tr>
<td>I share my shopping experience on social media</td>
<td>27.1% (N=121)</td>
<td>15.6% (N=61)</td>
<td>16.3***</td>
</tr>
<tr>
<td>I follow retailers on social media</td>
<td>16.4% (N=73)</td>
<td>18.4% (N=72)</td>
<td>.6(n.s.)</td>
</tr>
<tr>
<td>I get Amazon/Tmall deals on social media</td>
<td>21.3% (N=95)</td>
<td>20.7% (N=81)</td>
<td>.4(n.s.)</td>
</tr>
<tr>
<td>I get Amazon/Tmall deals through emails</td>
<td>37.4% (N=167)</td>
<td>10.0% (N=39)</td>
<td>84.7***</td>
</tr>
<tr>
<td>I have linked my bank account or credit card</td>
<td>63.9% (N=285)</td>
<td>60.1% (N=235)</td>
<td>1.3(n.s.)</td>
</tr>
<tr>
<td>I use Aplipay</td>
<td></td>
<td>75.2% (N=294)</td>
<td></td>
</tr>
<tr>
<td>Prime Membership</td>
<td>37.7% (N=168)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P<.001, **P<.01, *P<.05, n.s. not significant

**Descriptive Statistics of Key Variables**

**Trust**

Generally, Chinese respondents (M=34.3, SD=5.7) were more trusting in retailers on Tmall compared to U.S. shoppers’ trust in retailers on Amazon (M=24.2, SD=10.6), t (670) =-17.5, p<.001, d=-1.17 (Table 5.12). Cohen’s effect size value (d = -1.17) suggested an enormous difference (Cohen, 1992). Chinese respondents’ trust in (M=11.3, SD=2.1) famous brands on Tmall was higher than the U.S. shoppers trust in famous brands on Amazon (M=10.1, SD=2.8), t (815) =-7.0, p<.001, d= -.48. Cohen’s effect size value (d = -.48) suggested a moderate difference (Cohen, 1992). Also, Chinese respondents’ trust in (M=12.0,
retailers with Tmall guarantees was higher than the U.S. shoppers’ trust in third-party retailers fulfilled by Amazon ($M=10.3$, $SD=2.5$), $t(507)=-9.1$, $p<.001$, $d=-.73$.

Cohen’s effect size value ($d=-.73$) suggested a significant difference (Cohen, 1992).

However, there was no significant difference of the trust in third-party retailers on Amazon or Tmall among the U.S. ($M=11.5$, $SD=2.0$) and Chinese respondents ($M=11.3$, $SD=2.1$),

$t(667)=1.0$, $p=n.s$, $d=.1$.

Table 5.12

**Independent T-Test of Key Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>U.S. ($Mean, SD$)</th>
<th>China ($Mean, SD$)</th>
<th>$t$ for T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactivity</td>
<td>28.4 (5.8)</td>
<td>30.0 (4.8)</td>
<td>-4.2***</td>
</tr>
<tr>
<td>Playfulness</td>
<td>10.0 (3.1)</td>
<td>11.0 (2.2)</td>
<td>-5.5***</td>
</tr>
<tr>
<td>Social Presence</td>
<td>10.1 (3.0)</td>
<td>10.8 (2.3)</td>
<td>-3.7***</td>
</tr>
<tr>
<td>Personalization</td>
<td>8.3 (1.3)</td>
<td>8.2 (1.3)</td>
<td>1.6(n.s.)</td>
</tr>
<tr>
<td>Social Inequality</td>
<td>13.8 (5.1)</td>
<td>12.6 (4.1)</td>
<td>3.5***</td>
</tr>
<tr>
<td>Individualism</td>
<td>7.8 (1.3)</td>
<td>7.7 (1.4)</td>
<td>1.6(n.s.)</td>
</tr>
<tr>
<td>Collectivism</td>
<td>8.0 (1.6)</td>
<td>8.2 (1.4)</td>
<td>-2.0*</td>
</tr>
<tr>
<td>Power Distance</td>
<td>6.8 (3.3)</td>
<td>8.1 (2.9)</td>
<td>-6.2***</td>
</tr>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Trust in retailers on Amazon or Tmall</td>
<td>24.2 (10.6)</td>
<td>34.3 (5.7)</td>
<td>-17.5***</td>
</tr>
<tr>
<td>Trust in famous brands on Amazon or Tmall</td>
<td>10.1 (2.8)</td>
<td>11.3(2.1)</td>
<td>-7.0***</td>
</tr>
<tr>
<td>Trust in third-party retailers on Amazon or Tmall</td>
<td>11.5 (2.0)</td>
<td>11.3(2.1)</td>
<td>1.0 (n.s.)</td>
</tr>
<tr>
<td>Trust in third-party retailers fulfilled by Amazon or Tmall</td>
<td>10.3(2.5)</td>
<td>12.0(2.1)</td>
<td>-9.1***</td>
</tr>
<tr>
<td>Shopping diversity on Amazon/ Tmall</td>
<td>3.6 (2.0)</td>
<td>3.3 (1.7)</td>
<td>3.0**</td>
</tr>
<tr>
<td>Shopping frequency on Amazon/ Tmall</td>
<td>4.2 (1.0)</td>
<td>4.7(0.9)</td>
<td>-7.3***</td>
</tr>
<tr>
<td>Total money spent on Amazon/Tmall</td>
<td>$2157.5 (2157.5)</td>
<td>RMB3755.1 (RMB3755.1)</td>
<td>-4.2***</td>
</tr>
</tbody>
</table>

***$P<.001$, **$P<.01$, *$P<.05$, n.s. not significant
Actual Online Purchases

In terms of actual online purchases, U.S. consumers purchased more diverse products from third-party vendors on Amazon ($M=3.6$, $SD=2.0$) than Chinese shoppers who bought products on Tmall ($M=3.3$, $SD=1.7$), $t(834)=3.0$, $p=.003$, although the difference was small, $d=.16$ (Table 5.12). Chinese consumers purchased products more often on Tmall ($M=4.7$, $SD=1.0$) than U.S. consumers who shopped from third party-vendors on Amazon ($M=4.2$, $SD=0.9$), $t(836)=-7.3$, $p<.001$. The difference was moderate, $d=-.52$. The U.S. online shoppers spent $2,157.5$ ($SD=$6,009.0) on Amazon per year whereas Chinese consumers spent RMB$3,755.1$ ($SD=RMB4,895.6$) on Tmall per year, $t(835)=-4.2$, $p<.001$, $d=-.29$. The difference was small as Cohen’s effect size value showed ($d=-.29$).

Interactivity

As Table 5.12 showed, Chinese respondents ($M=30.0$, $SD=4.8$) perceived a higher level of interactivity of product review use experiences than U.S. ($M=28.4$, $SD=5.8$), $t(825)=-4.2$, $p<.001$, $d=-.30$. (Table 8). Chinese respondents perceived a higher level of playfulness ($M=11.0$, $SD=2.2$) and social presence ($M=10.8$, $SD=2.3$) than the U.S. consumers (PL: $M=10.0$, $SD=3.1$; SP: $M=10.1$, $SD=3.0$), $t(780)=-5.5$, $p<.001$; $t(816)=-3.7$, $p<.001$, $d=-.26$. Cohen’s effect size values showed minor differences of the level of perceived interactivity, playfulness, and social presence between Chinese respondents and the
Social Inequality and Culture

Social inequality and culture were compared in the U.S. and China to see if social and cultural conditions changed compared to prior literature. The U.S. respondents ($M=13.8$, $SD=5.1$) perceived a higher level of social inequality than Chinese respondents ($M=12.6$, $SD=4.1$), $t\ (836) = 3.5$, $p<.001$, $d=.26$ (Table 5.12). In terms of culture, consistent with prior research (Hofstede, Hofstede, & Minkov, 1991), Chinese respondents ($M=8.2$, $SD=1.4$) perceived higher level of collectivism than U.S. respondents ($M=8.0$, $SD=1.6$), $t\ (834) = -2.0$, $p<.001$, $d=-.13$. Similarly, Chinese respondents perceived a higher level of power distance ($M=8.1$, $SD=2.9$) than U.S. respondents ($M=6.8$, $SD=3.3$), $t\ (836) = -6.2$, $p<.001$, $d=-.42$. The differences of social inequality and collectivism between Chinese respondents and the U.S. ones were small, but that of power distance was moderate based on Cohen’s effect sizes. However, contrary to the expectation, there was no significant difference of individualism between the U.S. respondents ($M=7.8$, $SD=1.3$) and Chinese respondents ($M=7.7$, $SD=1.4$), $t\ (836) =1.6$, $p=n.s$, $d=.08$.

Since the U.S. respondents perceived a higher level of social inequality than Chinese respondents and there were more minorities in the U.S. sample than the U.S. population, four culture dimensions of White and minority respondents in the U.S. sample were compared by
independent t-test (Table 5.13). The results showed White respondents ($M=15.2, SD=4.9$) perceived a higher level of social inequality than minority respondents ($M=11.8, SD=4.6$), $t(446) = 7.4, p<.001$. This difference was great, $d = .71$. In contrast, minority respondents perceived a slightly higher level of collectivism (8.3 vs. 7.9, $t(446) = -3.8, p=.006, d = -.26$) and a much higher level of power distance (8.3 vs. 5.7, $t(446) = -8.2, p<.001, d = -.86$) than White respondents. There was no significant difference of individualism between White ($M=7.7, SD=1.3$) and minority respondents ($M=7.9, SD=1.3$), $t(446) = -1.0, p=n.s, d = -.15$.

Minority respondents perceived a higher level of collectivism (8.3 vs. 8.2) and power distance (8.3 vs. 8.1) than Chinese respondents.

Table 5.13

<table>
<thead>
<tr>
<th></th>
<th>White ($N=259$)</th>
<th>Minorities ($N=187$)</th>
<th>China ($N=254$)</th>
<th>t-test between White and Minorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Inequality</td>
<td>15.2 (4.9)</td>
<td>11.8 (4.6)</td>
<td>12.6 (4.1)</td>
<td>7.4***</td>
</tr>
<tr>
<td>Individualism</td>
<td>7.7 (1.3)</td>
<td>7.9 (1.3)</td>
<td>7.7 (1.4)</td>
<td>-1.0 (n.s.)</td>
</tr>
<tr>
<td>Collectivism</td>
<td>7.9 (1.6)</td>
<td>8.3 (1.5)</td>
<td>8.2 (1.4)</td>
<td>-3.8**</td>
</tr>
<tr>
<td>Power Distance</td>
<td>5.7 (2.4)</td>
<td>8.3 (3.7)</td>
<td>8.1 (2.9)</td>
<td>-8.2***</td>
</tr>
</tbody>
</table>

***$P<.001$, **$P<.01$, n.s. not significant

Income and race inequality played key roles in social inequality, so the effect of household income and race/ethnicity on social inequality was examined by a regression analysis. In the U.S. sample (Table 5.14), the race/ethnicity was negatively related to social inequality ($\beta = -7.4, p<.001$) and the household income was not related to the perceived social inequality ($\beta = -1.6, p=n.s.$). The model explained 9% of the variance of social
inequality in the U.S., $R^2 = .09$, $F (2, 443) = 24.17, p < .001$. In Chinese sample (Table 5.14), both race/ethnicity ($\beta = -.05, p = n.s.$) and income ($\beta = -.04, p = n.s.$) were not related to perceived social inequality. The model explained none of the variance of social inequality in the Chinese sample, $R^2 = .00$, $F (2, 388) = .94, p = n.s.$

Table 5.14

<table>
<thead>
<tr>
<th></th>
<th>U.S. (Beta)</th>
<th>China (Beta)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity</td>
<td>-7.4***</td>
<td>.05 (n.s.)</td>
</tr>
<tr>
<td>Income</td>
<td>-1.6 (n.s.)</td>
<td>-.04 (n.s.)</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>.09</td>
<td>.00</td>
</tr>
</tbody>
</table>

***$P < .001$, n.s. not significant

Assumption Test

Multiple regression is widely used to test research models and the effect of a set of independent variables on a dependent variable. Basic assumptions including linearity, normality, and multicollinearity need to be examined before performing the regression analysis. In the total sample, the assumptions for three multiple regressions are checked including the research models for trust in famous brands, trust in third-party retailers, and trust in fulfilled third-party retailers. Reliability and convergent validity are examined to check the quality of variable constructs.

Linearity

Linearity assumes there is a linear relationship between independent variables and dependent variables (Osborne & Waters, 2002). If linearity is violated, results including standard errors, regression coefficients, and statistical significance may have a bias. One
useful way to examine linearity is to examine standardized residuals and Cook’s D (Simkiss, Edmond, Bose, Bassat, & Troy, 2015). The standardized residual is the residual divided by its standard deviation. It can tell to what extent the model fits the data. If a standardized residual is larger than 3, outliers may exist and influence the regression line. In this situation, Cook’s Distance needs to be checked to see if the unusual observed value exerts a great impact on the regression line. Cook’s Distance greater than 1 indicates the existence of outliers and Cook’s Distance greater than 4 indicates an extreme outlier (Simkiss et al., 2015). As shows in Table 5.15, only the largest standardized residual of the pair of social inequality and trust in famous brands was 3.2 and the pair of interactivity and trust in third-party retailers was 3.0. But still, the Cook’s Distance for the two pairs was smaller than 1. Hence, linearity assumptions were met.

Table 5.15

<table>
<thead>
<tr>
<th>Pairs</th>
<th>Largest Standardized Residuals</th>
<th>Cook’s D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactivity-Trust in famous brands</td>
<td>2.6</td>
<td>.06</td>
</tr>
<tr>
<td>Interactivity-Trust in third-party retailers</td>
<td>3.0</td>
<td>.05</td>
</tr>
<tr>
<td>Interactivity- Trust in fulfilled third-party retailers</td>
<td>2.6</td>
<td>.03</td>
</tr>
<tr>
<td>Social inequality- Trust in famous brands</td>
<td>3.2</td>
<td>.05</td>
</tr>
<tr>
<td>Social inequality- Trust in third-party retailers</td>
<td>2.6</td>
<td>.03</td>
</tr>
<tr>
<td>Social inequality- Trust in fulfilled third-party retailers</td>
<td>2.5</td>
<td>.04</td>
</tr>
<tr>
<td>Power distance- Trust in famous brands</td>
<td>2.4</td>
<td>.03</td>
</tr>
<tr>
<td>Individualism- Trust in third-party retailers</td>
<td>2.6</td>
<td>.03</td>
</tr>
<tr>
<td>Collectivism- Trust in fulfilled third-party retailers</td>
<td>2.2</td>
<td>.04</td>
</tr>
</tbody>
</table>
Normality

Multiple regression assumes that variables are normally distributed (Osborne & Waters, 2002). Histograms of the standardized residuals and P-plots can be used to check normality. Histograms of the standardized residuals for three trust models were normally distributed (Figure 5.1, 5.3, 5.5). Also, P-P plots for three trust models had linear shapes (Figure 5.2, 5.4, 5.6). Therefore, the normality assumptions were met.

Figure 5.1 Histogram for trust in famous brand  Figure 5.2 P-P plot for trust in famous brand

Figure 5.3 Histogram for trust in third-party retailers  Figure 5.4 P-P plot for trust in third-party retailers
Multicollinearity assumption is violated if the predictors are strongly correlated with each other (Meyers et al., 2006). Severe multicollinearity is problematic since it leads to unstable coefficient estimates, changes the signs of coefficients, which weakens the statistical power of multivariate analysis. The tolerance level and the variance inflation factor (VIF) are widely used to check multicollinearity. A VIF value of 2.5 indicates predictors are moderately correlated (Allison, 1999). A VIF of 10 indicates predictors are highly correlated (Stevens, 2009). The VIF values of predictors in the model of trust in famous brands, trust in third-party retailers, and trust in fulfilled third-party retailers in the total sample were tested. As Table 5.16 showed, all VIF values were lower than 2.5. Hence, there was no multicollinearity issue in the model.
Table 5.16

*Multicollinearity Test of Three Trust Models in Total Sample*

<table>
<thead>
<tr>
<th>Model</th>
<th>FB Trust VIF</th>
<th>TP Trust VIF</th>
<th>FTP Trust VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online shopping proficiency</td>
<td>1.2</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Household income</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Interactivity</td>
<td>1.2</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Social inequality</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>Power distance</td>
<td>1.2</td>
<td>1.1</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Note: FB Trust= Trust in famous brands, TP Trust= Trust in third-party retailers, FTP Trust= Trust in fulfilled third-party retailers

Reliability of the Scales

Reliability reflects the overall consistency of a statistical measure (Litwin, 1995).

Cronbach’s alpha is a widely used method for testing scale reliability. Cronbach’s alpha measures the average correlation of a set of items. High Cronbach’s alpha reflects a high level of internal consistency. A value of .8 to .9 is good and a value of .6 to .7 is acceptable in most circumstances (George & Mallery, 2003). Cronbach’s alpha values for the eleven scales used in this study were satisfactory (Table 5.17), so the variables constructed in this study were internally consistent.

Table 5.17

*Reliability Test in Total Sample*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s alpha</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playfulness</td>
<td>.90</td>
<td>3</td>
</tr>
<tr>
<td>Social Presence</td>
<td>.88</td>
<td>3</td>
</tr>
<tr>
<td>Personalization</td>
<td>.72</td>
<td>2</td>
</tr>
<tr>
<td>Interactivity</td>
<td>.87</td>
<td>8</td>
</tr>
<tr>
<td>Social Inequality</td>
<td>.88</td>
<td>5</td>
</tr>
<tr>
<td>Individualism</td>
<td>.70</td>
<td>2</td>
</tr>
<tr>
<td>Collectivism</td>
<td>.71</td>
<td>2</td>
</tr>
<tr>
<td>Power Distance</td>
<td>.88</td>
<td>3</td>
</tr>
<tr>
<td>Trust in Famous brands on Amazon or Tmall</td>
<td>.87</td>
<td>3</td>
</tr>
<tr>
<td>Trust in third-party retailers on Amazon or Tmall</td>
<td>.86</td>
<td>3</td>
</tr>
</tbody>
</table>
Trust in third-party retailers fulfilled by Amazon or Tmall

Convergent Validity

Convergent validity is the subcategory of construct validity. It refers to the extent to which constructs that are theoretically related are in fact related. One technique to test convergent validity is to conduct confirmatory factor analyses (CFA) and t-test. Comrey and Lee (1992) suggested a factor loading value of 0.63 indicated good validity while 0.71 indicates excellent validity. A factor loading value of 0.32 indicates poor validity. As Table 5.18 showed, all factor loadings of constructs were higher than 0.71 and t-values were significant at $\alpha < 0.05$ levels. Therefore, convergent validity was achieved.

Table 5.18
Convergent Validity by Factor Analysis and T-Test in the Total Sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Constructs</th>
<th>Loadings</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playfulness</td>
<td>P1</td>
<td>.87</td>
<td>102.2***</td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>.88</td>
<td>94.5***</td>
</tr>
<tr>
<td></td>
<td>P3</td>
<td>.83</td>
<td>104.0***</td>
</tr>
<tr>
<td></td>
<td>SP1</td>
<td>.86</td>
<td>105.3***</td>
</tr>
<tr>
<td>Social Presence</td>
<td>SP2</td>
<td>.86</td>
<td>100.5***</td>
</tr>
<tr>
<td></td>
<td>SP3</td>
<td>.81</td>
<td>95.6***</td>
</tr>
<tr>
<td>Personalization</td>
<td>PL1</td>
<td>.86</td>
<td>160.0***</td>
</tr>
<tr>
<td></td>
<td>PL2</td>
<td>.87</td>
<td>172.8***</td>
</tr>
<tr>
<td></td>
<td>Playfulness</td>
<td>.83</td>
<td>109.7***</td>
</tr>
<tr>
<td>Interactivity</td>
<td>Social presence</td>
<td>.85</td>
<td>187.6***</td>
</tr>
<tr>
<td></td>
<td>Personalization</td>
<td>.76</td>
<td>112.0***</td>
</tr>
<tr>
<td></td>
<td>SI1 Income</td>
<td>.77</td>
<td>71.7***</td>
</tr>
<tr>
<td></td>
<td>SI 2 Job opportunity</td>
<td>.87</td>
<td>68.9***</td>
</tr>
<tr>
<td>Social Inequality</td>
<td>SI 3 Health care</td>
<td>.85</td>
<td>68.7***</td>
</tr>
<tr>
<td></td>
<td>SI 4 Education opportunity</td>
<td>.77</td>
<td>63.2***</td>
</tr>
<tr>
<td></td>
<td>SI 5 Opinion Expression</td>
<td>.72</td>
<td>65.9***</td>
</tr>
<tr>
<td>Individualism</td>
<td>I1</td>
<td>.70</td>
<td>132.0***</td>
</tr>
<tr>
<td></td>
<td>I 2</td>
<td>.82</td>
<td>140.7***</td>
</tr>
</tbody>
</table>
Collectivism  
<table>
<thead>
<tr>
<th></th>
<th>C 2</th>
<th>.84</th>
<th>129.6***</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C 3</td>
<td>.82</td>
<td>146.7***</td>
</tr>
<tr>
<td></td>
<td>PD1</td>
<td>.87</td>
<td>63.8***</td>
</tr>
</tbody>
</table>

Power Distance  
<table>
<thead>
<tr>
<th></th>
<th>PD 2</th>
<th>.90</th>
<th>57.2***</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PD 3</td>
<td>.87</td>
<td>61.4***</td>
</tr>
</tbody>
</table>

Trust in Famous brands on Amazon or Tmall  
<table>
<thead>
<tr>
<th></th>
<th>TF1 Competence</th>
<th>.89</th>
<th>112.7***</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TF 2 Integrity</td>
<td>.90</td>
<td>112.0***</td>
</tr>
<tr>
<td></td>
<td>TF 3 Emotional Trust</td>
<td>.88</td>
<td>97.3***</td>
</tr>
</tbody>
</table>

Trust in third-party retailers on Amazon or Tmall  
<table>
<thead>
<tr>
<th></th>
<th>TT1 Competence</th>
<th>.84</th>
<th>134.8***</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TT 2 Integrity</td>
<td>.88</td>
<td>132.0***</td>
</tr>
<tr>
<td></td>
<td>TT 3 Emotional Trust</td>
<td>.89</td>
<td>122.3***</td>
</tr>
</tbody>
</table>

Trust in third-party retailers fulfilled by Amazon or Tmall  
<table>
<thead>
<tr>
<th></th>
<th>TFT1 Competence</th>
<th>.88</th>
<th>98.1***</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TFT2 Integrity</td>
<td>.89</td>
<td>115.7***</td>
</tr>
<tr>
<td></td>
<td>TFT3 Emotional Trust</td>
<td>.87</td>
<td>104.3***</td>
</tr>
</tbody>
</table>

***P<.001

Hypotheses Test

Predictors of Online Trust in Online Retailers

H1 hypothesized that perceived interactivity of product review use experiences was positively related to consumers’ trust in online retailers (Table 5.19, 5.20, 5.21). For H1a, perceived interactivity was positively related to consumers’ trust in famous brands on Amazon or Tmall in China’s sample (β=.39, p <.001), U.S. sample (β=.27, p <.001), and total sample (β=.32, p <.001). Similarly, perceived interactivity of product review use experiences was positively related to consumers’ trust in third-party online retailers on Amazon or Tmall in China’s sample (β=.43, p <.001), the U.S. sample (β=.26, p <.001), and total sample (β=.32, p <.001). Also, perceived interactivity was positively related to consumers’ trust in third-party online retailers fulfilled by Amazon or Tmall in China’s sample (β=.42, p <.001), the U.S. sample (β=.30, p <.001), and total sample (β=.36, p <.001). The higher level of
interactivity people perceived in product review use, the more likely they would trust online retailers on Amazon or Tmall. Thus, H1a, H1b, and H1c were supported.

Table 5.19
Predictors of Trust in Famous Brands on Amazon or Tmall

<table>
<thead>
<tr>
<th>Predictor</th>
<th>China (beta)</th>
<th>U.S. (beta)</th>
<th>Total (beta)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online shopping proficiency</td>
<td>-.02 (n.s.)</td>
<td>-.10*</td>
<td>-.13***</td>
</tr>
<tr>
<td>Household income</td>
<td>.01 (n.s.)</td>
<td>-.02 (n.s.)</td>
<td>.01 (n.s.)</td>
</tr>
<tr>
<td>Interactivity</td>
<td>.39***</td>
<td>.27***</td>
<td>.32***</td>
</tr>
<tr>
<td>Social inequality</td>
<td>-.22***</td>
<td>-.22***</td>
<td>-.22***</td>
</tr>
<tr>
<td>Power distance</td>
<td>.12***</td>
<td>.21***</td>
<td>.17***</td>
</tr>
<tr>
<td>Adjusted R² of demographics</td>
<td>-.001</td>
<td>.10</td>
<td>.09</td>
</tr>
<tr>
<td>Adjusted R² of total model</td>
<td>.28</td>
<td>.33</td>
<td>.34</td>
</tr>
</tbody>
</table>

***P<.001, **P<.01, *P<.05, n.s. not significant

Table 5.20
Predictors of Trust in Third-party e-Retailers on Amazon or Tmall

<table>
<thead>
<tr>
<th>Predictor</th>
<th>China (beta)</th>
<th>U.S. (beta)</th>
<th>Total (beta)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online shopping proficiency</td>
<td>-.08 (n.s.)</td>
<td>.02 (n.s.)</td>
<td>.07*</td>
</tr>
<tr>
<td>Household income</td>
<td>.04 (n.s.)</td>
<td>.04 (n.s.)</td>
<td>.02 (n.s.)</td>
</tr>
<tr>
<td>Interactivity</td>
<td>.43***</td>
<td>.26***</td>
<td>.32***</td>
</tr>
<tr>
<td>Social inequality</td>
<td>-.21***</td>
<td>-.18**</td>
<td>-.19***</td>
</tr>
<tr>
<td>Individualism</td>
<td>.10 *</td>
<td>.14**</td>
<td>.15***</td>
</tr>
<tr>
<td>Adjusted R² of demographics</td>
<td>-.002</td>
<td>.009</td>
<td>.00</td>
</tr>
<tr>
<td>Adjusted R² of total model</td>
<td>.36</td>
<td>.16</td>
<td>.23</td>
</tr>
</tbody>
</table>

***P<.001, **P<.01, *P<.05, n.s. not significant

Table 5.21
Predictors of Trust in Fulfilled e-Retailers on Amazon or Tmall

<table>
<thead>
<tr>
<th>Predictor</th>
<th>China (beta)</th>
<th>U.S. (beta)</th>
<th>Total (beta)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online shopping proficiency</td>
<td>-.02 (n.s.)</td>
<td>-.13*</td>
<td>-.17***</td>
</tr>
<tr>
<td>Household income</td>
<td>-.01 (n.s.)</td>
<td>-.07 (n.s.)</td>
<td>-.01 (n.s.)</td>
</tr>
<tr>
<td>Interactivity</td>
<td>.42***</td>
<td>.30***</td>
<td>.36***</td>
</tr>
<tr>
<td>Social inequality</td>
<td>-.20***</td>
<td>-.12*</td>
<td>-.16***</td>
</tr>
<tr>
<td>Collectivism</td>
<td>.22***</td>
<td>.12*</td>
<td>.17***</td>
</tr>
<tr>
<td>Adjusted R² of demographics</td>
<td>.07</td>
<td>.001</td>
<td>.09</td>
</tr>
<tr>
<td>Adjusted R² of total model</td>
<td>.41</td>
<td>.21</td>
<td>.35</td>
</tr>
</tbody>
</table>

***P<.001, **P<.01, *P<.05, n.s. not significant
H2 hypothesized that social inequality was negatively related to consumers’ trust in online retailers. As Table 5.19, 5.20, 5.21 showed, social inequality was negatively related to consumers’ trust in famous brands on Amazon or Tmall in China’s sample ($\beta = -.22, p < .001$), U.S. sample ($\beta = -.22, p < .001$), and total sample ($\beta = -.22, p < .001$). Similarly, social inequality was negatively related to consumers’ trust in third-party online retailers on Amazon or Tmall in China’s sample ($\beta = -.21, p < .001$), the U.S. sample ($\beta = -.18, p = .002$), and total sample ($\beta = -.19, p < .001$). Social inequality was negatively related to consumers’ trust in third-party online retailers fulfilled by Amazon or Tmall in Chinese sample ($\beta = -.20, p < .001$), the U.S. sample ($\beta = -.12, p = .05$), and total sample ($\beta = -.16, p < .001$). However, social inequality was more impactful for predicting consumers’ trust in third-party retailers and fulfilled online retailers in China’s sample ($\beta_{3rd\ party} = -.21; \beta_{fulfilled} = -.20$) than the U.S. sample ($\beta_{3rd\ party} = -.18; \beta_{fulfilled} = -.12$). The higher social inequality people perceived, the less likely they would trust online retailers. Thus, H2a, H2b, H2c were supported.

H3a hypothesized individualism was positively related to trust in third-party retailers and H3b hypothesized collectivism was positively related to trust in third-party retailers fulfilled by Amazon or Tmall. As expected (Table 5.20), the results showed that individualism was positively related to consumers’ trust in third-party online retailers in China’s sample ($\beta = .10, p = .05$), U.S. sample ($\beta = .14, p = .01$) and total sample ($\beta = .15, P < .001$). The results in Table 5.21 indicated collectivism was positively related to
consumers’ higher trust in fulfilled online retailers than non-fulfilled online retailers in China’s sample ($\beta = .22, p < .001$), the U.S. sample ($\beta = .12, P = .05$), and total sample ($\beta = .17, p < .001$). Thus, H3a and H3b were supported.

H4a hypothesized individualism’s effect was stronger in the U.S. sample than in Chinese sample and H4b hypothesized collectivism’s effect was stronger in Chinese sample than in the U.S. sample. The effect of individualism on consumers’ trust in online retailers in the U.S. sample ($\beta = .14, p = .01$) was stronger than that in Chinese sample ($\beta = .10, p = 05$) (Table 5.20). The effect of collectivism on consumers’ trust in fulfilled online retailers in China’s sample ($\beta = .22, p < .001$) was stronger than that in the U.S. sample ($\beta = .12, P = .05$) (Table 5.21). Hence, H4a and H4b were supported.

H5a hypothesized the power distance was positively related to trust in famous brands. H5b hypothesized the effect of power distance was stronger in China than in the U.S. The results showed power distance was positively related to consumers’ higher trust in famous brands than non-famous brands in China’s sample ($\beta = .12, p < .001$), the U.S. sample ($\beta = .21, p < .001$), and total sample ($\beta = .17, p < .001$) (Table 5.19). However, contrary to the expectation, the effect of power distance on trust in famous brands was more impactful in the U.S. sample ($\beta = .21, p < .001$) than Chinese sample ($\beta = .12, p < .001$). The U.S. sample in this study had more minorities than the national population, race was added in the model to test the effect of power distance in the U.S. sample. When adding race in the regression
model, power distance was still a strong predictor of trust famous brands on Amazon (Table 5.22). H5a was supported while H5b was rejected.

Table 5.22
Effect of Race and Power Distance on Trust in Famous Brands on Amazon

<table>
<thead>
<tr>
<th>Predictor</th>
<th>U.S. (beta)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online shopping proficiency</td>
<td>-.08</td>
</tr>
<tr>
<td>Household income</td>
<td>-.02(n.s.)</td>
</tr>
<tr>
<td>Interactivity</td>
<td>.24***</td>
</tr>
<tr>
<td>Social inequality</td>
<td>-.20***</td>
</tr>
<tr>
<td>Power distance</td>
<td>.22***</td>
</tr>
<tr>
<td>Race</td>
<td>.13**</td>
</tr>
<tr>
<td>Online shopping proficiency</td>
<td>-.08</td>
</tr>
<tr>
<td>Household income</td>
<td>-.02(n.s.)</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.34</td>
</tr>
</tbody>
</table>

***P<.001, **P<.01, *P<.05, n.s. not significant

Individuals’ Characteristics and Trust

Individual characteristics including online shopping proficiency and household income were included in the study as control variables. Overall, online shopping proficiency and household income explained the minimal variance of trust in online retailers (Table 5.19, 5.20, 5.21). The highest variance explained by individual characteristics was 10% when the model of online shopping proficiency and household income predicted trust in famous brands in the U.S. sample, $R^2 = .10, F (2, 443) = 26.8, p < .001$. The lowest variance explained by online shopping proficiency and household income was -.02% when they predicted trust in third-party retailers in the Chinese sample, $R^2 = -.002, F (2, 366) = .7, p=n.s.$

The online shopping proficiency was negatively related to consumers’ trust in famous brands on Amazon or Tmall in the U.S. sample ($\beta = -.10, p=.03$) and total sample ($\beta = -.13, p <.001$) (Table 5.19, 5.20, 5.21). It was also negatively related to trust in fulfilled third-party
e-retailers in the U.S. sample ($\beta = -.13, p = .04$) and total sample ($\beta = -.17, p < .001$). However, the online shopping proficiency was positively related to trust in third-party retailers in the total sample ($\beta = .07, p = .04$). Therefore, the more proficient consumers were, the less likely they would trust famous brands and fulfilled third-party retailers in the U.S. and total sample, while the more likely they would trust third-party retailers in the total sample. The household income was not significantly related to trust in three types of retailers in all three samples.

Overall, the proposed models for predicting trust in all three types of online retailers were significant (Table 5.19, 5.20, 5.21). The model in the total sample explained 34% of the variance of trust in famous brands, adjusted $R^2 = .34, F (5, 809) = 86.24, p < .001$, 23% of the variance of trust in third-party retailers, adjusted $R^2 = .23, F (5, 669) = 41.61, p < .001$, and 35% of the variance of the perceived trust in fulfilled e-retailers, adjusted $R^2 = .35, F (5, 618) = 66.92, p < .001$. The model was stronger in China’s sample than U.S. sample when predicting trust in third-party e-retailers and trust in fulfilled e-retailers. The model explained 36% of the variance of trust in third-party e-retailers in China’s sample, adjusted $R^2 = .36, F (5, 352) = 41.01, p < .001$, whereas only 16% of the variance of trust in the U.S. sample, adjusted $R^2 = .16, F (5, 300) = 12.24, p < .001$. The model explained 41% of the variance of higher trust in fulfilled e-vendors in China’s sample, adjusted $R^2 = .41, F (5, 352) = 49.80, p < .001$, but only 21% variance of in the U.S. sample, adjusted $R^2 = .21, F (5, 260) = 14.66, p < .001$. 
**Micro and Macro Factors Comparison**

One important goal of this study is to compare the relative importance of the micro factors, the interactivity of product review use and the macro factors (social inequality and culture) in predicting customers’ trust in online retailers. R1 asked among the interactivity of product review use experiences, social inequality, and culture, which the strongest predictor of trust in online retailers was. Overall, the interactivity of product review use was the strongest predictor of trust in all three types of online retailers compared to social inequality and culture in three samples (Table 5.19, 5.20, 5.21). For example, in the total sample, the interactivity of product review use experiences ($\beta = .32, P<.001$) was more impactful than social inequality ($\beta = -.22, p<.001$) and power distance ($\beta = .17, p<.001$) when predicting trust in famous brands on Amazon or Tmall. Similar results were found in models of trust in other retailers and samples in U.S. and China. Comparing social inequality and culture, different patterns emerged. As Table 5.19, 5.20, and 5.21 showed, social inequality was more powerful than power distance and individualism in predicting trust in famous brands and third-party retailers in all three samples. However, collectivism played a more critical role than social inequality when predicting trust in fulfilled retailers in all three samples. Individuals’ characteristics were less impactful than interactivity, social inequality, and culture for predicting trust in online retailers.
Predictors of Perceived Interactivity

Since the impact of interactivity on trust in online retailers was stronger in China than in the U.S., predictors of interactivity were further explored in R2. The effect of online shopping proficiency and online shopping frequency on different devices on perceived interactivity was tested. Savvy consumers may be more familiar with website features than novices. The mobile apps may increase the perceived interactivity because there is a direct interaction between the interface and consumers’ hands.

As Table 5.2 showed, the results showed that both in the U.S. ($\beta = .27, p < .001$) and China ($\beta = .19, p < .001$), online shopping frequency on mobile devices (e.g., smartphones, tablets) was positively related to perceived interactivity of product review use experiences. Also, online shopping frequency on non-mobile devices (e.g., desktops, laptops) was not related to perceived interactivity of product review use experiences in both the U.S. ($\beta = .10, p=n.s.$) and China ($\beta = .08, p=n.s.$). However, online shopping proficiency was negatively related to U.S. consumers’ perceived interactivity ($\beta = -.17, p < .001$) whereas positively related to Chinese consumers’ perceived interactivity ($\beta = .12, p=.02$). The model was stronger in the U.S. sample, $R^2 = .11, F (2, 443) = 29.48, p < .001$, than Chinese sample, $R^2 = .05, F (2, 367) = 10.81, p < .001$. Thus, the more proficient U.S. consumers were, the less interactivity of product review use they perceived. In contrast, the more proficient Chinese consumers were, the more interactivity of product review use they perceived.
Table 5.23

**Predictors of Perceived Interactivity of Product Review Use Experiences**

<table>
<thead>
<tr>
<th>Interactivity Dimensions</th>
<th>U.S.</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online shopping proficiency</td>
<td>-.17***</td>
<td>.12*</td>
</tr>
<tr>
<td>Online shopping frequency on mobile devices</td>
<td>.27***</td>
<td>.19***</td>
</tr>
<tr>
<td>Online shopping frequency on non-mobile devices</td>
<td>.10 (n.s.)</td>
<td>.08 (n.s.)</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.11</td>
<td>.05</td>
</tr>
</tbody>
</table>

***p<.001, **p<.01, *p<.05, n.s. not significant

Independent t-test was performed to compare the perceived interactivity between respondents with high and low online shopping proficiency (Table 5.24). Since the average online shopping history of the U.S. respondents was 8.1 years (SD=4.7) whereas that for Chinese respondents was 4.8 years (SD=2.3). The group of high online shopping proficiency referred to people who purchased online for more than 8 years in the U.S. sample and more than 5 years in the Chinese sample. The group of low online shopping proficiency referred to people who purchased online for less than or equal to 8 years in the U.S. sample and less than or equal to 5 years in the Chinese sample. The t-test results confirmed the regression results.

In the U.S. sample (Table 5.23), respondents with low online shopping proficiency (M=27.03, SD=5.80) perceived a higher level of interactivity than those with high online shopping proficiency (M=27.03, SD=5.59), t(446) = -4.44, p = .005. However, in Chinese sample, respondents with high online shopping proficiency (M=31.13, SD=4.76) perceived higher level of interactivity than those with low online shopping proficiency (M=29.55, SD=4.70), t(369) = 2.80, p < .001. Therefore, the more proficient U.S. consumers were, the
less interactivity of product review use they perceived. In contrast, the more proficient Chinese consumers were, the more interactivity of product review use they perceived.

Table 5.24

<table>
<thead>
<tr>
<th>Perceived Interactivity by Different Online Shopping Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Interactivity</td>
</tr>
<tr>
<td>High online shopping proficiency</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Low online shopping proficiency</td>
</tr>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

***P<.001, **P<.01.

Comparison of Interactivity Dimensions

R3 asked among three dimensions of interactivity (social presence, personalization, playfulness), which the strongest predictor of trust in online retailers was. Trust in famous brands, third-party retailers, and fulfilled online retailers were combined as one factor, trust in online retailers. Among three dimensions of interactivity (Table 5.25), after controlling online shopping proficiency and household income, in the total sample, the strongest factor for predicting trust in online retailers was personalization ($\beta = .19, p < .001$), followed by social presence ($\beta = .10, p = .01$) and playfulness ($\beta = .10, p = .02$). In Chinese sample, the strongest factor for predicting trust in online retailers was social presence ($\beta = .34, p < .001$), followed by personalization ($\beta = .25, p < .001$) and playfulness ($\beta = .15, p < .001$). However, in U.S. sample, only personalization was positively related to trust in online retailers ($\beta = .27, p < .001$) while social presence ($\beta = .05, p = n.s.$) and playfulness ($\beta = .02, p = n.s.$) were not
related to trust in online retailers. Thus, for R2, among three dimensions of interactivity, personalization was the strongest predictor for trust in online retailers in U.S. and total samples and social presence was the strongest predictor in the Chinese sample. The model was stronger in Chinese sample than the U.S. sample. The model explained 36% of the variance of social trust in online retailers, $R^2 = .36, F (5, 363) = 42.54, p < .001$, while only 11% in the U.S. sample, $R^2 = .11, F (5, 440) = 11.46, p < .001$.

Table 5.25
Comparison the Effect of Interactivity Dimensions on Online Trust in e-Retailers

<table>
<thead>
<tr>
<th>Interactivity Dimensions</th>
<th>China</th>
<th>U.S.</th>
<th>Total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online shopping proficiency</td>
<td>-.02(n.s.)</td>
<td>-.13***</td>
<td>-.07*</td>
</tr>
<tr>
<td>Household income</td>
<td>.04(n.s.)</td>
<td>.07(n.s.)</td>
<td>.16***</td>
</tr>
<tr>
<td>Personalization</td>
<td>.25**</td>
<td>.27***</td>
<td>.19***</td>
</tr>
<tr>
<td>Playfulness</td>
<td>.15***</td>
<td>.02(n.s.)</td>
<td>.10*</td>
</tr>
<tr>
<td>Social Presence</td>
<td>.34***</td>
<td>.05(n.s.)</td>
<td>.10**</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>.36</td>
<td>.11</td>
<td>.13</td>
</tr>
</tbody>
</table>

***$P<.001$, **$P<.01$, *$P<.05$, n.s. not significant

Trust and Actual Online Purchases in The U.S. Sample

In addition to the hypothesis on the role of interactivity, social inequality, and culture in affecting consumers’ trust, the relationship of trust in online retailers and actual online purchases was examined. Three types of trust were summed up to test the effect of overall trust in online retailers on consumers’ actual online purchase. H6 proposed the higher the consumers’ trusted in online retailers, the larger the consumers’ online purchases including online shopping diversity (H6a), online shopping frequency (H6b), and the amount of money spent on Amazon and Tmall (H6c). In the U.S. sample (Table 5.26), when controlling online
shopping proficiency and household income, consumers’ trust in all types of Amazon
retailers had a positive and direct impact on their shopping frequency ($\beta = .19, p < .001$) and
the diversity of product types purchased on Amazon ($\beta = .23, p < .001$). The more likely
consumers would trust online retailers, the more frequently they would purchase on their
websites and the more diverse products they would purchase. Consumers’ trust in Amazon
retailers did not exert a direct impact on the amount of money they spent on Amazon ($\beta =
-.02, p = n.s.$). Consumers’ shopping frequency on Amazon was positively related to the
amount of money they spent on Amazon ($\beta = .09, p = .05$). Online shopping diversity and the
online shopping frequency had a mutual effect on each other. The diversity of product types
consumers purchased and the online shopping frequency had a mutually positive relationship
with each other (D to F, $\beta = .31, p < .001$; F to D, $\beta = .30, p < .001$). Hence, in the U.S.
sample, H6a and H6b were supported whereas H6c was partially supported.

Table 5.26

<table>
<thead>
<tr>
<th>IV</th>
<th>DV</th>
<th>Trust in Amazon retailers</th>
<th>Amazon shopping frequency</th>
<th>Amazon shopping diversity</th>
<th>Online shopping proficiency</th>
<th>Household Income</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
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<td>Amazon shopping frequency</td>
<td>.19***</td>
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<td></td>
<td></td>
<td></td>
<td>.08</td>
<td>.04</td>
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<td>- .09</td>
<td>.07</td>
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<tr>
<td></td>
<td>Amazon shopping diversity</td>
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<tr>
<td></td>
<td>Amazon shopping diversity</td>
<td>.23***</td>
<td>.15***</td>
<td>.19***</td>
<td>.07</td>
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</table>

*Note: Adjusted R² values are provided for each model.*
| Money spent on Amazon | -.02 (n.s.) | -.18*** | .11* | .04 | .09* | -.18*** | .10* | .04 | .06 | -.20*** | .10* | .04 | (n.s.) |

***$P<.001$, **$P<.01$, *$P<.05$, n.s. not significant

**Individuals’ Characteristics and Actual Online Purchases in the U.S.**

Overall, individual characteristics including online shopping proficiency and household income exerted a minimal effect on actual online purchases in the U.S. sample (Table 5.27). Online shopping proficiency and household income explained 4% of the variance of online shopping diversity, $R^2 = .4$, $F (2, 443) = 10.5$, $p < .001$, 0.5% of the variance of online shopping frequency, $R^2 = .005$, $F (2, 443) = 2.0$, $p=\text{n.s.}$, and 6% of the amount of money spent on Amazon, $R^2 = .005$, $F (2, 443) = 14.3$, $p < .001$. Online shopping proficiency was positively related to online shopping diversity on Amazon ($\beta = .18$, $p < .001$), but negatively related to the money spent on Amazon ($\beta = -.20$, $p < .001$). The savvy online consumers purchased more diverse products on Amazon, but spent less money on Amazon compared to the novice in online shopping field. The U.S. consumers who had higher income would purchase more diverse products ($\beta = .09$, $p = .05$), shop more often ($\beta = .09$, $p = .05$), and spend more money on Amazon ($\beta = .17$, $p < .001$).
<table>
<thead>
<tr>
<th>Table 5.27</th>
<th>Individuals’ Characteristics and Actual Online Purchases in the U.S. sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US(beta)</td>
</tr>
<tr>
<td><strong>DV Online shopping diversity</strong></td>
<td></td>
</tr>
<tr>
<td>Online shopping proficiency</td>
<td>.18***</td>
</tr>
<tr>
<td>Household income</td>
<td>.09*</td>
</tr>
<tr>
<td>Adjusted R² of total model</td>
<td>.04</td>
</tr>
<tr>
<td><strong>DV Online shopping frequency</strong></td>
<td></td>
</tr>
<tr>
<td>Online shopping proficiency</td>
<td>-.03(n.s.)</td>
</tr>
<tr>
<td>Household income</td>
<td>.09*</td>
</tr>
<tr>
<td>Adjusted R² of total model</td>
<td>.005</td>
</tr>
<tr>
<td><strong>DV Money spent online</strong></td>
<td></td>
</tr>
<tr>
<td>Online shopping proficiency</td>
<td>-.20***</td>
</tr>
<tr>
<td>Household income</td>
<td>.17***</td>
</tr>
<tr>
<td>Adjusted R² of total model</td>
<td>.06</td>
</tr>
</tbody>
</table>

***P<.001, **P<.01, *P<.05, n.s. not significant

Because of the differences in the relationships of online shopping frequency, diversity and total online purchase amount between China and the U.S., a separate model for each country was presented. Based on the above results (Figure 5.7), in the U.S. sample, trust in online retailers had a direct positive impact on the online shopping frequency and the diversity of purchased products on Amazon, but it had an indirect impact on the amount of money spent on the retailers’ on Amazon. The online shopping diversity and the online shopping frequency had a mutual effect on each other.
In Chinese sample (Table 5.28), when controlling online shopping proficiency and household income, consumers’ trust in Tmall retailers did not have a direct impact on their shopping frequency on Tmall ($\beta = .08$, $p = n.s.$). Also, consumers’ trust in Tmall retailers did not exert a significant impact on the amount of money they spent on Tmall ($\beta = -.03$, $p = n.s.$). Consumers’ trust in Tmall retailers was positively related to the diversity of purchased product types on Tmall ($\beta = .10; p < .001$).

The involvement on Tmall may mediate the relationship between trust in retailers on Tmall and the actual online purchases on Tmall. The involvement on Tmall was the activities consumers were involved with Tmall such as searching products or posting product reviews on Tmall. The more active consumers were on Tmall, the more time they would spend on
Tmall. Thus, they may make more online purchases on Tmall. The results showed

consumers’ trust in Tmall retailers was positively related to their involvement on Tmall ($\beta = .13, p = .02$) (Table 5.27). Tmall involvement was positively related to online shopping

frequency on Tmall ($\beta = .15, p = .005$). Thus, the involvement on Tmall might be a mediator of the relationship between online trust and shopping frequency on Tmall.

Table 5.28
Relationship of Trust in e-Retailers and Actual Purchases in Chinese Sample

<table>
<thead>
<tr>
<th>IV</th>
<th>Tmall in Tmall retailers</th>
<th>Tmall involvement</th>
<th>Tmall shopping frequency</th>
<th>Tmall shopping diversity</th>
<th>Online shopping proficiency</th>
<th>Household income</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tmall shopping frequency</td>
<td>.08 (n.s.)</td>
<td>.08 (n.s.)</td>
<td>.08 (n.s.)</td>
<td>.08 (n.s.)</td>
<td>.05 (n.s.)</td>
<td>.02</td>
<td>.01</td>
</tr>
<tr>
<td>Tmall involvement</td>
<td>.13*</td>
<td>-.03 (n.s.)</td>
<td>.02 (n.s.)</td>
<td>.01 (n.s.)</td>
<td>.15**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tmall shopping diversity</td>
<td>.10*</td>
<td>.07 (n.s.)</td>
<td>.02 (n.s.)</td>
<td>.01 (n.s.)</td>
<td>.22 (n.s.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Money spent on Tmall</td>
<td>-.03 (n.s.)</td>
<td>.28***</td>
<td>.15**</td>
<td>.10 (n.s.)</td>
<td>.27***</td>
<td>.14**</td>
<td>.10</td>
</tr>
</tbody>
</table>

Thus, they may make more online purchases on Tmall. The results showed consumers’ trust in Tmall retailers was positively related to their involvement on Tmall ($\beta = .13, p = .02$) (Table 5.27). Tmall involvement was positively related to online shopping frequency on Tmall ($\beta = .15, p = .005$). Thus, the involvement on Tmall might be a mediator of the relationship between online trust and shopping frequency on Tmall.
Path analysis was performed to test the mediation effect by AMOS (Figure 5.8). If $p$ for Chi-Square and RMSEA was less than .05 and NFI was higher than .9, there was no significant difference between the proposed model and the perfect model. As Figure 5.9 showed, the proposed model in this study was close to the perfect model, ($R^2 = .17$, $df = 2$, $p = n.s.$, NFI=.995, RMSEA=.00). In the path analysis, trust in online retailers on Tmall was positively related to Tmall involvement ($\beta = .13$, $p < .001$). Tmall involvement was positively related to online shopping frequency on Tmall ($\beta = .15$, $p < .001$). Thus, trust in Tmall retailers had an indirect effect on online shopping frequency on Tmall. Tmall involvement mediated the relationship between trust in Tmall retailers and online shopping frequency on Tmall.

$e_2 \rightarrow Tmall \text{ Involvement}$

$e_1 \rightarrow Tmall \text{ Shopping Frequency}$

$\text{Trust in Retailers} \rightarrow Tmall \text{ Involvement}$

$Tmall \text{ Shopping Frequency} \rightarrow \text{Money Spent on Tmall}$

$e_3$

*Figure 5.8 Path Analysis of the Relationship of Trust and Actual Online Purchases in China

***$P<.001$, **$P<.01$, *$P<.05$, n.s. not significant*
The online shopping frequency on Tmall was the only significant predictor of the amount of money consumers spent on Tmall ($\beta = .19, p < .001$). Trust in online retailers ($\beta = -.03, p = n.s.$), the involvement on Tmall ($\beta = -.03, p = n.s.$), the diversity of purchase product types ($\beta = .01, p = n.s.$) did not affect the amount of money spent on Tmall directly. Trust in Tmall had a positive effect on online shopping diversity, but no direct impact on online shopping frequency and the amount of money spent on Tmall. The involvement on Tmall mediated the relationship between online trust and shopping frequency on Tmall. Therefore, in Chinese sample, H6a was supported and H6b and H6c were partially supported.

A revised model was proposed to show the relationship between trust in Tmall retailers and actual online purchases on Tmall in Chinese sample (Figure 5.9). Trust in Tmall retailers had a positive direct impact on both online shopping diversity, but an indirect effect on the online shopping frequency on Tmall. The involvement on Tmall mediated the relationship of trust in e-retailers and online shopping frequency. The involvement on Tmall also affected the online shopping diversity on Tmall positively. It was similar to the U.S. sample that online shopping frequency and online shopping diversity was also positively correlated in the Chinese sample. Furthermore, trust in Tmall retailers had no direct impact on the total amount of money spent on Tmall. Online shopping frequency on Tmall was the only direct predictor of the amount money spent on Tmall.
Figure 5.9 A revised model for trust and actual purchases on Tmall in Chinese sample
***$p<.001$, **$p<.01$, *$p<.05$, n.s. not significant

**Individual Characteristics and Actual Purchases in Chinese Sample**

Overall, individual characteristics including online shopping proficiency and household income exerted a minimal effect on actual online purchases in Chinese sample too (Table 5.29). The highest variance explained by online shopping proficiency and household income was 10% when they predicted the amount of money spent on Tmall in Chinese sample, China, $R^2 = .10$, $F (2, 374) = 20.8$, $p < .001$. Individual characteristics explained 0.5% of the variance of the online shopping diversity, $R^2 = .005$, $F (2, 374) = 2.0$, $p = n.s.$, and 0.1% of the variance of online shopping frequency on Tmall, $R^2 = .001$, $F (2, 374) = 1.3$, $p = n.s.$
Online shopping proficiency was positively related to online shopping diversity ($\beta = .10, p = .05$), online shopping frequency ($\beta = .10, p = .05$), and the money spent on Tmall ($\beta = .27, p < .001$) in the Chinese sample. The household income only had a positive effect on the amount of money Chinese consumers spent on Tmall ($\beta = .14, p = .004$), but no effect on the online shopping diversity ($\beta = .02, p = n.s.$) and online shopping frequency ($\beta = .02, p = n.s.$) on Tmall.

Table 5.29  
*Individuals’ Characteristics and Actual Online Purchases in Chinese sample*

<table>
<thead>
<tr>
<th></th>
<th>China (beta)</th>
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<tbody>
<tr>
<td><strong>DV Online shopping diversity</strong></td>
<td></td>
</tr>
<tr>
<td>Online shopping proficiency</td>
<td>.10*</td>
</tr>
<tr>
<td>Household income</td>
<td>.02 (n.s.)</td>
</tr>
<tr>
<td>Adjusted R$^2$ of total model</td>
<td>.005</td>
</tr>
<tr>
<td><strong>DV Online shopping frequency</strong></td>
<td></td>
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<tr>
<td>Online shopping proficiency</td>
<td>.10*</td>
</tr>
<tr>
<td>Household income</td>
<td>.02 (n.s.)</td>
</tr>
<tr>
<td>Adjusted R$^2$ of total model</td>
<td>.001</td>
</tr>
<tr>
<td><strong>DV Money spent online</strong></td>
<td></td>
</tr>
<tr>
<td>Online shopping proficiency</td>
<td>.27***</td>
</tr>
<tr>
<td>Household income</td>
<td>.14**</td>
</tr>
<tr>
<td>Adjusted R$^2$ of total model</td>
<td>.10</td>
</tr>
</tbody>
</table>

***$P < .001$, **$P < .01$, *$P < .05$, n.s. not significant***
**Results Summary**

In summary (Table 5.30), predictors of trust in online retailers were the same for both the U.S. and Chinese sample. Perceived interactivity of product review use was positively related to trust in famous brands, trust in third-party retailers, and trust in third-party retailers fulfilled by Amazon or Tmall. Thus, H1a, H1b, H1c were supported. Perceived social inequality was negatively related to trust in famous brands, trust in third-party retailers, and trust in third-party retailers fulfilled by Amazon or Tmall. H2a, H2b, H2c were supported. Individualism was positively related to consumers’ trust in third-party retailers on Amazon or Tmall. Collectivism was positively related to consumers’ trust in third-party retailers fulfilled by Amazon/Tmall. Hence, H3a and H3b were supported. Also, the individualism’s effect on trust in third-party retailers was stronger in the U.S. than in China. Collectivism’s effect on trust in third-party retailers fulfilled by Amazon/Tmall was stronger in China than in the U.S. H4a and H4b were supported. Power distance is positively related to consumers’ trust in famous brands. H5a was supported. However, power distance’s effect on trust in famous brands is stronger in the U.S. than in China, H5b was rejected.

Overall, trust in online retailers was positively related to online shopping diversity on Amazon or Tmall in the U.S. and Chinese samples (Table 5.29). Hence, H6a was supported in both the U.S. and China. In the U.S. sample, trust in online retailers was positively related to online shopping frequency on Amazon. In Chinese sample, trust in online retailers affected...
online shopping frequency on Tmall indirectly by the mediating effect of Tmall involvement. Therefore, H6b was supported in the U.S. sample, but partially supported in the Chinese sample. Trust in online retailers did not affect the money spent on Amazon or Tmall directly, but affect it by its impact on the online shopping frequency. Hence, H6c was partially supported in both the U.S. and China.

In terms of R1 (Table 5.29), overall, perceived interactivity of product review use was the strongest predictor of trust in all three types of online retailers. Comparing social inequality and culture, different patterns emerged. Social inequality was more powerful than power distance and individualism in predicting trust in famous brands and third-party retailers in all three samples. However, collectivism played a more critical role than social inequality when predicting trust in fulfilled retailers in all three samples. Individuals’ characteristics were less impactful than interactivity, social inequality, and culture for predicting trust in online retailers.

Predictors of interactivity were explored in R2 (Table 5.29). Online shopping frequency on mobile devices was positively related to perceived interactivity of product review use in both the U.S. and Chinese samples. Online shopping proficiency was negatively related to perceived interactivity of product review use in the U.S. sample, but it is positively related to perceived interactivity in the Chinese sample.
R3 asked among three dimensions of interactivity (social presence, personalization, playfulness), which the strongest predictor of trust in online retailers was (Table 5.29). In the U.S. sample, personalization was the only one significant predictor of consumers’ trust in retailers on Amazon. In Chinese sample, social presence was the strongest predictor of trust in retailers on Tmall, followed by personalization. Playfulness was the least significant predictor of trust in retailers on Tmall. In the total sample, personalization is the strongest predictor of trust in online retailers, followed by social presence and playfulness.

Table 5.30

<table>
<thead>
<tr>
<th>Hypotheses Testing Results</th>
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<tbody>
<tr>
<td>H1. Perceived interactivity of product review use is positively related to consumers’ trust in online retailers on Amazon or Tmall.</td>
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<tr>
<td>H1a. Perceived interactivity of product review use is positively related to consumers’ trust in famous brands on Amazon or Tmall.</td>
</tr>
<tr>
<td>H1b. Perceived interactivity of product review use is positively related to consumers’ trust in third-party online retailers on Amazon or Tmall.</td>
</tr>
<tr>
<td>H1c. Perceived interactivity of product review use is positively related to consumers’ trust in third-party online retailers fulfilled by Amazon or Tmall.</td>
</tr>
<tr>
<td>H2. Perceived social inequality is negatively related to consumers’ trust in online retailers on Amazon or Tmall.</td>
</tr>
<tr>
<td>H2a. Perceived social inequality is negatively related to consumers’ trust in famous brands on Amazon or Tmall.</td>
</tr>
<tr>
<td>H2b. Perceived social inequality is negatively related to consumers’ trust in third-party online retailers on Amazon or Tmall.</td>
</tr>
<tr>
<td>H2c. Social inequality is negatively related to consumers’ trust in third-party online retailers fulfilled by Amazon or Tmall.</td>
</tr>
<tr>
<td>H3a. Individualism is positively related to consumers’ trust in third-party retailers on Amazon or Tmall.</td>
</tr>
<tr>
<td>H3b. Collectivism is positively related to consumers’ trust in third-party retailers fulfilled by Amazon/Tmall.</td>
</tr>
<tr>
<td>Hypothesis</td>
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<tr>
<td>------------</td>
</tr>
<tr>
<td>H4a</td>
</tr>
<tr>
<td>H4b</td>
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<tr>
<td>H5a</td>
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<tr>
<td>H5b</td>
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<tr>
<td>H6</td>
</tr>
<tr>
<td>H6a</td>
</tr>
<tr>
<td>H6b</td>
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<tr>
<td>H6c</td>
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</table>

R1. Among the interactivity of product review use, social inequality, culture, which is the strongest predictor of trust in online retailers on Amazon or Tmall?

R2. What are the predictors of perceived interactivity of product review use?

R3. Among three dimensions of the interactivity of product review use, which is the strongest predictor of trust in online retailers on Amazon or Tmall?
CHAPTER VI. DISCUSSION, CONCLUSION, AND LIMITATION

Theoretical and Practical Contributions

This study provides several theoretical contributions for the academic field. Firstly, this study is the first study that confirms the positive effect of interactivity of product review use on trust in retailers. Previous studies examine the effect of the interactivity of websites (Alotaibi & Rigas, 2008; Lee, 2005) or text patterns of product reviews on trust (Filieri, 2016). Studies about product reviews focus on the text content of product reviews on e-commerce sites such as the valence, extremity, depth of product reviews instead of interactivity (Pavlou & Dimoka, 2006; Mudambi & Schuff, 2010). Thus, scholars may want to pay attention to characteristics or effects of interactivity of product reviews and other parts on e-commerce sites or apps. Secondly, this study has found predictors differ for trust in different retailers such as famous brands and third-party retailers. Hence, consumers’ trust in different retailers should be investigated specifically. Furthermore, this study confirms the significant effect of macro factors including perceived social inequality and culture on trust in retailers. Thus, online trust models should include not only micro factors such as interactivity, website designs, but also macro factors such as social inequality, culture, or social-economic conditions, etc. Also, this study reexamines cultures in the U.S. and China and obtain different results compared to the widely cited Hofstede (1983)’s cultural model. Like Hofstede (1983)’s cultural model, the perceived collectivism and power distance in China is
higher than in the U.S. However, there is no difference of individualism between the U.S. and China. Studies of culture in China should reexamine the current culture in China instead of assuming the previous widely used culture model is always applicable in different eras. Also, the perceived social inequality, collectivism, and power distance differ across racial groups in the U.S. Hence, researchers need to examine the effect of race on culture in the U.S.

The model of predictors of online trust is applicable across countries, so it can be generalized to other countries with different socio-economic conditions. As expected, the perceived interactivity is positively and social inequality is negatively related to trust in three types of retailers. Power distance is positively related to trust in famous brands. Individualism is positively related to trust in third-party retailers. Collectivism is positively related to trust in fulfilled third-party retailers. It is worth noting that the strength of social and cultural factors on trust in online retailers may be different across countries. For example, the strength of individualism on trust in third-party retailers is stronger in the U.S. whereas the strength of collectivism on trust in fulfilled third-party retailers is stronger in China in this study.

Another contribution is this study examines the relationship between online trust and actual online purchases. Previous studies focus on online purchase intentions (Kimery & McCord, 2002). Also, results in this study imply that the significant results of the effect of online trust on actual online purchases can be found empirically. It is worth noting that predictors differ for different dimensions such as online shopping diversity,
frequency, and total money spent online. Future studies can apply these dimensions of actual online purchases as dependent variables. The model of trust and actual online purchases differs in the U.S. and China. Trust in online retailers has a direct effect on consumers’ online shopping frequency in the U.S. sample whereas has an indirect effect consumers’ online shopping frequency in the Chinese sample. Hence, contexts need to be considered for the relationship between trust in online retailers and actual online purchases.

Practically, this study offers some insights for both retailers and policy makers. For retailers, they may want to improve the interactivity to build consumers’ trust and increase their online purchases. For policy makers, they would understand the effect of social conditions and culture on economic activities such as consumers’ trust and attitudes towards economic transactions. It is an important economic policy to expand domestic demands and boost consumptions. They should minimize social inequality in the society because it exerts a negative impact on people’s trust and discourages people’s consumptions.

**Online Shopping Behaviors between the U.S. and Chinese Consumers**

The study shows that U.S. consumers have longer Internet usage and online shopping experiences than Chinese consumers, in consistent with other previous research (Chiu, Lin, Sun & Hsu, 2009). U.S. customers have longer experiences of online shopping (8 years) than China’s online shoppers (5 years). However, Chinese consumers spend more money shopping online although their income was lower than the U.S. counterparts.
Among heavy consumers who shop more often than several times a week, Chinese heavy consumers make online purchases more often on media devices such as desktops, laptops, and smartphones than the U.S. ones. The U.S. heavy consumers purchase more often on new media devices such as video game consoles and smart TVs than Chinese ones. Even though the smartphone penetration rate in China (58%) is lower than that in the U.S. (72%) (Poushters, 2016), those who have smartphones in China are receptive to mobile shopping. Mobile commerce accounted for 55.5% of total e-commerce sales in China whereas only 22% in the U.S. (eMarketer, 2015a). The high ownership of new media devices may affect U.S. consumers’ online purchases. Anderson and Rainie (2015) reported 56% of young adults aged 18-29 had video game consoles such as Microsoft Xbox in the U.S. On the other hand, Chinese teenagers were banned from game console gaming since 2000 in order to decrease gaming addiction (Thibaud, 2015). Instead, Chinese users spent 43% of their time playing games on smartphones. Although the market of video game consoles was reopened in 2014, game players may be accustomed to playing games on smartphones. Hence, smartphones play a more critical role in Chinese consumers’ life. Based on the high percentage of smartphone use for shopping shown in the study, Chinese marketers and retailers should develop e-commerce strategies that focus on desktops and laptops, especially smartphones. American marketers and retailers need to recognize the importance of video game consoles
and smart TVs for online shopping, besides the typical online shopping channels such as
desktops, laptops, and smartphones.

**Online Shopping Behaviors of Consumers on Amazon and Tmall**

Chinese consumers spend more money relative to their income on Tmall compared to
their U.S. counterparts. The U.S. consumers purchase more high-involvement products on
Amazon (e.g., electronics) than Chinese shoppers on Tmall. However, there is no significant
difference between consumers in the two countries in terms of purchases of low-involvement
products (e.g., books, clothes) on Amazon or Tmall. One reason is Tmall and Taobao are two
subsidiaries of Alibaba. Tmall was built after Taobao and a lot of Tmall consumers are also
Taobao consumers. Apparels are the product type with the greatest sales on Taobao and
consumers inherit their habits from Taobao. Besides, another popular e-commerce company
JD targets the electronics market in China and competes with Tmall in the electronics market.

Another reason is the product returning and replacement. It is easier to return high-
involvement products on Amazon than on Tmall. Thus, Chinese consumers face more risks
when purchasing high-involvement products. The most popular products on Amazon are
electronic products, media products and books, and health and beauty products. In contrast,
the most popular products on Tmall are apparels, shoes, and jewelry, tools for homes and
gardens, and food and groceries. There is special local food in different regions in China, so
consumers can buy products in other areas online. In contrast, U.S. consumers can buy most
food in local supermarkets or stores with much less local varieties. Thus, it is reasonable that there are more China’s consumers who buy food online than U.S. ones. There are fewer Chinese consumers who purchase luxury goods on Tmall compared to Amazon consumers, probably because they are worried about counterfeits.

There are more U.S. consumers who search and read product information on Amazon compared to Tmall consumers. However, more Chinese consumers post product reviews on Tmall than Amazon consumers. The effect of information technology is more prominent in a society with high power distance where there are more barriers to the information distribution (Yun, Park, & Ha, 2008). Retailers have more information about a product than customers. Chinese consumers face more risks and returning product is inconvenient, so product reviews become a critical way for Chinese consumers to reduce risks. Product reviews let customers’ voice be heard, enable consumers to help each other, and empower consumers by giving them more information.

There are more U.S. consumers who share their Amazon shopping experiences than Chinese consumers who share Tmall shopping experiences on social media. This may be explained by Chinese consumers’ recognition of their negative online reviews can already exert a direct impact on product sales compared to postings on social media. Also, online reviews can get attentions of more consumers who are interested in specific products whereas the audience of postings on social media are friends and families who may not be interested
in the product. Thus, Chinese consumers are more likely to express their shopping experiences on retailers’ website than social media. E-mails are more effective marketing tools in the U.S. than China. The percentage of consumers who access deals on social media is similar between the U.S. and China, but there are more U.S. consumers who access deals by emails than China’s consumers.

In terms of online payment methods, this study has found more than half of Amazon and Tmall shoppers linked their accounts with their bank accounts or credit cards. Most Tmall consumers used Alipay, the internal payment system developed by Tmall, which may motivate them to make more purchases on Tmall. The credit system in the U.S. is more effective and widespread than in China. In the U.S., if customers experience frauds of online transactions, customers can contact banks and disclaim the transaction. Banks will help customers to get money back. However, in China, if customers experience fraud of online transactions, it is difficult for them to get money back and they will face an economic loss. The advantage of Alipay is Alipay increases security and reduces risks of online transactions. When customers pay for a product on Tmall, the money will be deposited in Alipay as a transfer hub. Retailers will obtain money until online customers confirm they receive products. Amazon also has a one-click method that makes online purchases convenient and easy.
Trust and Risks

Overall, Chinese consumers perceive more risks when purchasing online than the U.S. consumers. Compared to the U.S. respondents, Chinese consumers have a higher concern about counterfeits, fake product reviews, the discrepancy between the actual product and the picture, and the economic loss without receiving the product. In contrast, the U.S. consumers have higher concerns about product return and replacement, refund, timeliness, product delivery, and the website usability than Chinese consumers. There are more counterfeits and fake online reviews in China than the in U.S. Hence, it is reasonable Chinese consumers are more concerned about them. The U.S. consumers have higher concerns about product return, replacement, and refund because it is common for the U.S. consumers to return or replace products both online or offline. However, it is difficult for Chinese consumers to return or replace products both online or offline, so Chinese consumers have little expectation they can return or replace products conveniently.

The U.S. consumers are more time-sensitive than Chinese consumers. One reason is the shipping speed in the two countries. Product delivery in the U.S. usually takes five to seven days whereas it takes only three days in China. Amazon Prime members can enjoy two-day shipping, but they need to pay $99 per years for the membership fee. Product types purchased online may explain the higher concern about the discrepancy between the product and the picture in China than the U.S. For example, Chinese consumers purchase clothes
more often on Tmall than their U.S. counterparts on Amazon. The discrepancy between clothing pictures and actual clothing product is more common than electronic products.

Perceived risks are negatively related to consumers' trust (Teo & Liu, 2007). Therefore, Chinese retailers should minimize consumers’ perceived risks of counterfeits, authenticate product reviews, and encourage consumers to post actual product pictures. The U.S. retailers may want to provide faster delivery of products. In terms of privacy, both the U.S. and Chinese consumers are concerned about privacy. Hence, all retailers should protect consumers’ information security.

Overall, Chinese consumers trust retailers on e-commerce sites more than U.S. consumers. Chinese consumers have more trust in famous brands and third-party retailers fulfilled by Tmall compared than their U.S. counterparts. Chinese consumers are worried about counterfeits, fake product reviews, the discrepancy of the actual product and the picture most. There are more counterfeits on Taobao than Tmall. Tmall was built after Taobao by Alibaba to decrease a number of counterfeits. There are two types of stores on Tmall including flagship stores and franchised stores. Flagship stores sell products with their own brands such as Apple and Sony flagship stores on Tmall. Franchised stores sell products with one or more authority granted brands. Hence, consumers may believe famous brand owners and retailers with authorizations are less likely to sell counterfeits and have fake product reviews and more likely to provide high-quality products.
It is difficult for Chinese consumers to return or replace products and get the refund in both online and offline shopping contexts. The guarantee that consumers can return the product within seven days without any reasons become more important for Chinese consumers, although it is still hard for them to return products with the guarantees. On the other hand, Amazon handles the shipping, returning, and replacement of products sold by fulfilled third-party retailers. For products sold by non-fulfilled third-party retailers, the difficulty of returning products is still less than that in China as return policies are a common practice in the U.S. Also, collectivists are more likely to build trust depending on transference process than individualists (Doney et al., 1998). Thus, Chinese consumers are more likely to transfer the trust in the platform (Tmall) to retailers on Tmall.

**Interactivity and Trust**

This study reveals that the impact of interactivity on trust in retailers, which supports the hyperpersonal model that suggests computer-mediated communication (CMC) can exceed face-to-face (FtF) interaction and become hyperpersonal interaction (Walther, 1996). The interactivity is the unique advantage that makes e-WOM build trust as face-to-face WOM. This study has also found the perceived interactivity of product review use experiences is more impactful in predicting trust in retailers in Chinese sample than the U.S. sample. Also, Chinese consumers perceive a higher level of overall interactivity, social presence, and playfulness on their product review use in Tmall than the U.S. consumers on Amazon. The
perceived personalization is similar for Amazon and Tmall consumers. All three dimensions of interactivity including social presence, and playfulness, and personalization are positively related to Chinese consumers’ trust in online retailers. Social presence is the most important predictor of trust in online retailers for Chinese consumers, followed by playfulness and personalization. However, the perceived personalization is the only significant predictor of trust in Amazon retailers in the U.S. sample.

One important reason for the different results in the two countries is the difference in website design between Tmall and Amazon. The perceived interactivity is defined as the extent to which people perceive their experiences simulate interpersonal interaction and feel the existence of social actors (Thorson & Rodgers, 2006). The more people perceive they are communicating with an individual, the higher level of interactivity they will perceive. Multimodality is highly related to social presence. The more modes used in the communication process, the more likely people will feel they are communicating with a human being socially. There are more online consumers who post picture reviews on Tmall than Amazon. Tmall Customers can read picture reviews by clicking the photo review only button. Human beings or faces that appear in many picture reviews not only display the existence of a human being, but also show consumers’ personal information (e.g. gender, appearances, emotions, moods), their attitudes towards the product or the shopping experiences, non-verbal cues, and even social or context environment. It supports
hyperpersonal model that CMC has some advantages over FtF communication (Walther, 1996) and also denies early scholars’ arguments that CMC is task-oriented and lacks non-verbal cues (Kiesler, Siegel, & McGuire, 1984; Daft & Lengel, 1987). Thus, online product reviews with rich cues strengthen consumers’ perceptions of social presence. On the other hand, although Amazon allows customers to post both picture and video reviews, there are much fewer online consumers who post picture reviews or video reviews. Thus, it explains why social presence plays a more critical role in trust in online retailers in China than in the U.S.

Also, most product reviews on Amazon are textual reviews. Amazon reviewers usually post long reviews and describe their product usage experiences in details, which can be viewed as highly personalized. On the other hand, textual reviews on Tmall are shorter than that on Amazon. Tmall consumers usually give feedbacks about their product experiences and transactions in several sentences without details. Hence, it is reasonable personalization becomes more important interactivity predictor of trust in online retailers for Amazon consumers than Tmall consumers.

The perceived of interactivity of two-way communication such as discussion on social media is higher than one-way communication such as newspapers. Two-way communication exists in product reviews on both Amazon and Tmall. On Amazon, consumers can report if they believe one product review is helpful or not on the page and give comment on a specific
review. There is no communication between retailers and consumers on product review page. Thus, the two-way communication on Amazon happens among consumers. On Tmall, retailers can reply to consumers’ reviews. For example, if a consumer complains that he/she receives a damaged product, retailers can explain the reason and take actions to solve the problem. However, consumers cannot give comments to reviews posted by other consumers. There is a substantial difference in the types of interactivity in terms of discussion between U.S. and Chinese e-commerce sites.

**Predictors of Perceived Interactivity**

Online shopping proficiency and overall shopping frequency on mobile devices affect the perceived interactivity. The results of this study have found online shopping proficiency is negatively related to the perceived interactivity in the U.S. sample, but positively related to the perceived interactivity in the Chinese sample. Consumers in the U.S. with high online shopping proficiency perceive a lower level of interactivity of product review use whereas Chinese consumers with high online shopping proficiency feel a higher level of interactivity of product review use. It should be noted that the U.S. consumers have longer Internet usage and online shopping experiences than Chinese consumers as e-commerce started much earlier in the U.S. than China. There are fewer interactive features on e-commerce websites in early days. Late online shopping adopters such as Chinese consumers begin their online shopping experiences with the latest interactive features. But American customers who have longer
experiences of Internet use and online purchases may be accustomed to shopping online, so they are less sensitive to new website features. Thus, the longer online shopping experiences American customers have, the less interactivity they perceive. In contrast, the longer online shopping experiences Chinese customers have, the more interactivity they perceive.

The overall online frequency on mobile devices increases customers’ perceived interactivity of product review use experiences in both the U.S. and Chinese samples. Communication on mobile devices is unique compared to web pages, although mobile devices have smaller screen size and display less information than web pages. There are four aspects that mobile devices that facilitate interactivity: 1) multitasking, 2) user control, 3) synchronicity and two-way communication and 4) personalization. People can perform multiple tasks on mobile devices. For example, they can visit product pages, read product reviews, consult with friends for advice at the same time. Such multi-tasking can create the feeling of interactivity by combining different sources to form a judgement about a product and making a purchase decision.

The ubiquitous availability of mobile devices increases perceived control by the users. User control, one important aspect of interactivity, refers to the extent to which users can modify the task flow and choose the content and the time and places to receive the content (Dholakia, Zhao, Dholakia, & Fortin, 2001). Customers carry mobile devices every day and everywhere, so they can search products or make online purchases anytime and anywhere on
mobile devices. Other features on mobile devices such as photo taking and picture saving may also enhance consumers’ control of the shopping experience. For example, consumers can take pictures of a product in offline stores and search and buy it online. Or they can save a product picture for future potential purchases on their mobile devices. Besides, consumers can touch the page with their fingers directly on mobile apps, which increases the interaction with and control over the information system. Synchronicity and two-way communication are important aspects of interactivity (Ha & James 1998). People have more synchronous activities and two-way communication on mobile devices such as calling friends, using instant messages, having video talks, etc. Customers may be used to give responses more rapidly on mobile devices such as giving feedback to other customers’ product reviews. The personal information of mobile users such as the users’ identity, the time, and places can easily be identified with GPS capability of mobile devices.

Social Inequality and Trust

Social inequality is the second strongest predictor of trust in online retailers after interactivity of product review use in this study. It exerts a negative impact on consumers’ trust in all three types of retailers including famous brands, third-party retailers, and fulfilled retailers. Its effect on trust in online retailers is stronger in Chinese sample than the U.S. sample, although the U.S. respondents perceive a higher level of social inequality. There are several reasons for the higher level of perceived social inequality in the U.S. sample than
Chinese sample. This study has found that race/ethnicity is significantly related to, but income is not related to perceived social inequality in the U.S. White respondents perceive significant higher level of social inequality than the minorities, contrary to common belief in racial and income inequality in the U.S. The household income is not related to the perceived social inequality. The U.S. respondents’ higher perception of social inequality may be explained by their higher expectation of equality and more willingness to speak up against injustice.

In Chinese sample, both race/ethnicity and income are not related to perceived social inequality. It confirms the result of previous literature that the effect of race/ethnicity is less important for social inequality (Yanbi & Minhui, 2010). Low level of perceived social inequality in China may be because of the small number of rural residents in the Chinese sample. The rural and urban inequality is the most severe problem in China. However, 71.6% of Chinese Internet users are urban residents whereas only 28.4% of them are rural residents (China Internet Network Information Center, 2016). Participants in this study were recruited online, so it is difficult for non-online rural residents to participate in the survey and report their perception of social inequality. Another reason may be the high percentage of well-educated respondents in the Chinese sample. People with good educational background have more opportunities to obtain decent jobs and high income. Thus, they may perceive a low level of social inequality.
Culture and Trust

This study confirms the impact of national culture on trust in online retailers from a macro perspective. According to hyperpersonal model (Walther, 1996), the message receivers may magnify or exaggerate subtle cues in the communication due to a lack of nonverbal cues. Product review section on websites provides a lot of information. Consumers from distinct cultures may pay attention to different messages or the same message with different levels when they are reading product reviews, which results in different trust. Consumers in high power distance may be more likely to check if a product has famous brands. People in collectivism culture may pay more attention to if a retailer is a partner of a trustworthy group.

Culture is dynamic instead of static. The different countries’ cultures need to be examined constantly in different eras. As Hofstede (1980)’s culture model proposed, Chinese respondents’ perceive a higher level of power distance and a lower level of individualism than the U.S. respondents, but the difference of individualism is much smaller than the difference of power distance between the U.S. and China.

As expected, power distance is positively related to trust in famous brands. People in high power distance culture are more likely to build trust by capability, calculative, and prediction process (Doney et al., 1998). They may pay more attention to if a product has famous brands or not. People with high power distance perception value experts and authorities more than those in low power distance culture. Hence, they may believe famous
brands are more capable of providing high-quality products and less likely to have opportunistic behaviors. Also, people with high power distance perception are more likely to adopt famous brands as a symbol of power to compensate for their low social status (Kim & Zhang, 2014). Overall, Chinese respondents perceive a higher level of power distance than the U.S. ones. However, the power distance’s effect is stronger in the U.S. sample than Chinese sample. This study has reported the U.S. minorities perceive significantly a higher level of power distance than White Americans and Chinese individuals. Therefore, the culture in the same country differs among different race/ethnic groups or regions. The impact of culture on trust should be discussed based on the context of race/ethnic groups in the U.S. or different regions in China.

Individualism is positively related to trust in third-party retailers on both Amazon and Tmall. Individualism assumes individuals are independent of others. Individualism emphasizes individuals are unique and values different opinions (Triandis, 1995). Chinese consumers are more likely to depend on reference groups’ opinions to make decisions than Americans. American customers prefer making decisions by their own experiences and knowledge than Chinese ones (Doran, 2002). Individualists are more likely to form trust based on a capability or calculation process than collectivists (Doney et al., 1998). They are more likely to evaluate the capability and gain and loss of each third-party retailer instead of viewing them as a group. Consumers face more risks when purchasing products from third-
party retailers. If they compare the group of third-party retailers with the group of fulfilled third-party retailers, they may believe the group of third-party retailers is untrustworthy. Thus, individualism increases consumers’ trust in third-party retailers.

Collectivism is positively related to trust in third-party retailers fulfilled by Amazon/Tmall. People in collectivism culture identify themselves as one part of the society instead of separating them with rest of the whole society (Taylor, Miracle, & Wilson, 1997). They emphasize that the value of the whole group, society, or country is more important than that of individuals. Collectivism believes the group membership plays an essential role in self-identity (Hofstede, 1980).

Collectivists are more likely to build trust depending on transference process than individualists (Doney et al., 1998). Chinese consumers are more likely to depend on reference groups’ opinions to make decisions than Americans. People in collectivism culture may be more likely to depend on WOM to make purchase decisions compared to individualists (Doran, 2002). Consumers with a high level of collectivism perception are more likely to transfer the trust of a credible source such as Amazon or Tmall to third-party retailers fulfilled by Amazon or Tmall. Thus, to target consumers in a collectivism culture or with a high perception of collectivism, retailers may want to find the source consumer trust and try to connect with the credible source in order to build trust. Some strategies are third-party
seals, the existence of offline stores, celebrity endorsement, or using social media personalities to enhance consumers trust, etc.

It is consistent with expectations that individualism’s effect on trust is stronger in the U.S. sample than the Chinese sample while collectivism’s effect is stronger in Chinese sample than the U.S. sample. It is reasonable since the U.S. is considered as an individualism country while China is considered as a collectivism country (Hofstede, 1983).

**Individual Characteristics and Online Shopping**

Overall, individuals’ characteristics exert minimal impact on trust in online retailers than interactivity, social inequality, and culture in the regression analysis. Consumers who have longer online shopping experiences were more likely to purchase diverse types of products in the U.S. and China. However, the longer online shopping experiences the U.S. consumers had, the less money they would spend on a specific website. On the other hand, in China, the longer online shopping experiences consumers had, the more often they would purchase online and the more money they would spend on a specific website.

In terms of individual characteristics and actual online purchases, online shopping proficiency was positively related to online shopping diversity in all three samples. Online shopping proficiency was negatively related to online shopping frequency in the total sample and the money spent online in U.S. and total sample. However, it was positively related to online shopping frequency and the money spent online in the Chinese sample. Therefore,
consumers who had longer online shopping experiences were more likely to purchase diverse types of products in the U.S. and China.

Household income is more impactful on U.S. consumers than Chinese consumers on online shopping behavior. The U.S. consumers who have higher income would purchase more diverse products, shop more often, and spend more money on a specific website. However, the household income only exerts a positive effect on the amount of money Chinese consumers spend on Tmall, but no effect on the online shopping diversity and online shopping frequency on Tmall. Therefore, Chinese consumers with higher income are more likely to spend more money on a specific website they are familiar with such as Tmall, but are not necessarily purchase more often or more diverse products on the website.

**Suggestions**

Chinese retailers can spend more time and effort in building brands and adding third-party certificates to increase consumers’ trust since they trust famous brands and retailers with guarantees. If U.S. retailers target minorities, they should focus on building brands since minorities perceive a higher level of power distance and power distance is positively related to trust in famous brands. For familiar retailers such as Amazon, U.S. consumers are willing to purchase more diverse products and try new retailers on the platform. Thus, trustworthy or popular e-commerce sites can offer more types of products or new retailers, but the product
quality needs to be ensured. For Chinese consumers, they stick to several product types they have purchased or trust. It is difficult to transfer their trust in one product type to another.

Retailers and marketers in both the U.S. and China need to be aware of the positive and negative effect of online reviews on consumers while understanding the differences in the two markets. Chinese consumers are more likely to post product reviews than U.S. consumers, thus Chinese retailers need to be aware of negative reviews’ impact on sales. Social media are important channels for retailers and marketers in the two countries because any negative messages about products or retailers may become viral and be exposed to a larger number of audience in a short time. Emails are more vital for the U.S. retailers than Chinese ones.

This study has found interactivity of product review use can help enhance consumers’ trust in retailers. Retailers may want to improve the interactivity of not only e-commerce platforms such as websites or apps, but specific parts on platforms such as product reviews. Retailers may want to improve social presence, personalization, and playfulness on e-commerce sites or apps since they are three important dimensions of interactivity. To increase social presence on websites and playfulness, retailers can provide video or three-dimensional product demonstrations or avatar customer services. Also, consumers who are purchasing for the same product could be shown to each other to increase social presence. With the development of information technology such as virtual reality, customers will have feel
online shopping is more realistic and simulates offline shopping. Retailers can also offer personalized ads or products to customers based on their interests and purchase histories.

This study reports online shopping frequency on mobile devices can increase consumers’ perceived interactivity. Customers may perceive a higher level of interactivity on mobile devices. Also, heavy Chinese consumers make more online purchase on smartphones than U.S. consumers whereas there are more heavy U.S. consumers who purchase on video game consoles and smart TVs than Chinese consumers. In order to increase social presence and playfulness of mobile shopping apps, retailers can encourage customers to post more image or video reviews by mobile devices. Personalized offers, deals, or ads based on specific time and locations can be provided on mobile channels. Also, QR codes can be added on retailers’ websites to increase more mobile consumers and mobile purchases. Live chat features can be added to increase the interactivity.

Retailers need to be aware of the effect of the social environment on consumers’ attitudes and behaviors and develop distinctive plans based on specific social-economic conditions. They may want to spend more time and effort in building trust of customers in countries with great social inequality. Also, any ads, products, or posts on social media that contain inequality information such as gender or race discrimination may decrease customers’ trust. Thus, retailers and marketers need to develop appropriate marketing plans and public relation strategies to boost trust in unfavorable social environments.
Policy makers in the U.S. and China need to take actions to minimize the social inequality. For China, one suggestion is to improve the Internet infrastructure, education quality, and quality of medical services. Since 2014, Chinese government developed “Rural Broadband” project with the investment of 695 million. The pilot project will cover 20 rural areas. The goal of this project is to increase the broadband penetration rate to 35% in rural families (Bai Du Baike, 2016). Good teachers are not willing to teach in rural areas due to the low salary and poor conditions. Policy makers can develop online education, thus rural children can access great educational resources in cities and be educated by online education. The precondition of online education is the Internet infrastructure. Besides, the “Hu Kou” residence registration system is one big obstacle of social equality, socially education equality. It cannot be removed totally due to Chinese enormous population and limited resources. Farmer-turned workers refer to farmers who give up farming work in rural areas and work in cities as such as construction workers. Children of farmer-turned workers with low salary have to pay high extra fee since these workers are not registered as permanent urban residence. A lot of farmer-turned workers’ children become stay-at-home children who stay in rural areas while their parents work for low-paying jobs such as laborers, construction workers in cities. Policy makers may consider decreasing the extra fee and allow farmer-turned workers’ children to be educated more easily in cities.
Race or ethnicity inequality may be the biggest barrier to social equality in the U.S. Policy makers can encourage schools, organization, and companies to increase the diversity by deducting the tax. Low-cost health care insurances can be offered to minorities families with low household income. The public welfare may need to be improved. Some minority families with low household income would have more children in order to obtain more public welfare and resources. It is challenging for children from these families to finish higher education because of high tuitions and the number of kids. Poor education backgrounds and skills result in low income and then poor health care. One solution is to provide low-cost professional training for low-income people to enhance their job skills and increase opportunities of obtaining high skilled jobs.

**Limitations and Future Research**

Limitations exists in this study. First, the sample in this study has a bias. Comparing the U.S. sample in this study with U.S. general population (U.S. Census., 2014), there were more young, female, low-income, and well-educated participants and minorities in this study. The percentage of minorities in the U.S. sample (41.9%) is higher than that in the U.S. population (22.6%) (U.S. Census, 2014). One reason is the sample bias of Amazon Mechanical Turk. Buhrmester, Kwang and Gosling (2011) evaluated the data quality of Amazon’s Mechanical Turk by comparing 3,006 Turk participants with a large standard Internet sample (Gosling et al., 2004). Participants on Mechanical Turk came from fifty states
in the U.S. Gender distribution of the Mechanical Turk was similar as that in the standard Internet sample. Minorities accounted for 36% of Turk participants. Especially, there were more Asian Americans in the U.S. sample (29.4%) than the U.S. population (5.4%). The reason may be the highest percentage of the Internet usage rate among Asian Americans (97%) than other ethnic groups such as White (85%), Hispanic (81%), and Black Americans (78%) (Perrin & Duggan, 2015). The greater percentage of minorities in the U.S. sample does not affect the perceived level of social inequality, but increases the effect of power distance.

Comparing Chinese sample in this study with Chinese general Internet users (China Internet Network Information Center, 2016), there were more young, male, high-income, and well-educated participants in this study. Regional inequality between rural and urban areas plays a key role in social inequality in China. But the high concentration of urban Internet users in this study, which may weaken the effect of social inequality on trust in retailers in Chinese sample.

Additionally, some measurements in this study need to be improved. Culture consists of multiple constructs. The measurement of individualism includes one dimension of self-concept. The measurement of collectivism one dimension of family relationships. Scholars suggest individualism is distinctive from collectivism in terms of self-concept, group membership, goals, well-being, life satisfaction, emotional expression, etc. (Markus & Kitayama, 1991; Oyserman, 1993). Matsumoto, et al. (1997) developed a scale of
individualism/collectivism with four dimensions including values about families, friends, colleagues, and strangers. If the culture scale could include multiple dimensions, it may increase its validity. But due to the length limitation of the questionnaire in this study, the author only focused on one dimension. The online shopping frequency was measured by a six-point scale including Daily, Several times a week, Several times a month, Several times a year, Less than once a year, and Never. The unequal scale may affect the results and interpretations.

For interactivity, this study examines only the interactivity of product review use on retailers’ websites. Mobile shopping is popular nowadays. This study has turned out overall mobile shopping frequency can increase consumers’ perceived interactivity of product review use on retailers’ websites. It is possible consumers use several devices such as laptops and smartphones at the same time for online shopping. It is interesting to compare the interactivity between websites and mobile apps and investigate convergence of media usage of consumers’ online purchases.

People live in a society with other social members. Their behaviors are affected by the social environment and culture. Micro factors such as social inequality, social-economic conditions, and culture should be included in online trust models or at least included as control variables when conducting cross-national comparison studies. This study revealed that the perceived power distance of different race/ethnic groups differs within a country.
Future research can compare among different race/ethnic groups the effect of culture, social environment, perception or experiences of racial discriminations on online trust or online shopping behaviors in the future studies.
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APPENDIX A. APPROVAL LETTER OF HUMAN SUBJECT REVIEW BOARD

DATE: February 6, 2015
TO: Liu Yang, Ph.D candidate
FROM: Bowling Green State University Human Subjects Review Board
PROJECT TITLE: [704298-2 Baum Online shoppers' trust in e-vendors
SUBMISSION TYPE: Revision
ACTION: APPROVED
APPROVAL DATE: February 5, 2015
EXPIRATION DATE: January 25, 2016
REVIEW TYPE: Expedited Review
REVIEW CATEGORY: Expedited review category # 7

Thank you for your submission of Revision materials for this project. The Bowling Green State University. Human Subjects Review Board has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

The final approved version of the consent document(s) is available as a published Board Document in the Review Details page. You must use the approved version of the consent document when obtaining consent from participants. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please add the text equivalent of the HSRB IRBNet approval/expiration date stamp to the "footer" area of the electronic consent document. Please note that you are responsible to conduct the study as approved by the HSRB. If you seek to make any changes in your project activities or procedures, those modifications must be approved by this committee prior to initiation. Please use the modification request form for this procedure.

You have been approved to enroll 1000 participants. If you wish to enroll additional
participants you must seek approval from the HSRB.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. All NON-

COMPLIANCE issues or COMPLAINTS regarding this project must also be reported promptly to this office.

This approval expires on January 25, 2016. You will receive a continuing review notice before your project expires. If you wish to continue your work after the expiration date, your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date.

Good luck with your work. If you have any questions, please contact the Office of Research Compliance at 419-372-7716 or hsr@bgsu.edu. Please include your project title and reference number in all correspondence regarding this project.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Bowling Green State University Human Subjects Review Board's records.
APPENDIX B. ENGLISH VERSION OF INFORMED CONSENT LETTER

Informed Consent Form

Dear Sir/Madam:

Introduction
You are invited to participate in a research study about consumers’ online shopping experiences. The purpose of this study is to examine what factors affect online shoppers’ trust in online vendors. This academic study is conducted by Liu Yang, Ph.D. candidate from School of Media and Communication at Bowling Green State University.

Procedures
You will be asked to complete an online survey about your online shopping experiences, how you communicate with online retailers and other consumers, and your basic information such as gender, age, race and etc. This survey will take approximately 10 minutes of your time.

Participation
You must be 18 years old or older to participate in this study. Your participation is voluntary and your completion of the online survey indicates your consent to participate in this study. You have the right to terminate your participation at any time without any penalty. You may skip any questions you do not wish to answer. There is no risk to you for participating in this study. Your participation or not will not impact any relationship you have with Bowling Green State University.

Confidentiality
Your information will be kept confidentially and not identified in the report. There is no identifying information such as your name or address saved in the database or published. All
data obtained from participants will be analyzed anonymously and only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). The survey data will be secured in a separate database with password by the investigator, Liu Yang. Only the principal investigator, Liu Yang, has access to the database. But to further protect your privacy, you should be aware of the possible use of tracking software by computer owners and complete the survey on your personal computer. Make sure you clear the browser cache and page history after completing this survey. The results will only be used for dissertation and academic purpose. The result may be published on academic journal.

**Risks**

The risk of participation is no greater than that experienced in daily life.

**Benefits and contribution**

Your answers and opinions are VERY IMPORTANT for this study. The results of this study can help media scholars and online retailers to understand how people shop online and what factors influence their online trust, and thus may affect the future development of e-commerce marketing and academic research. You may get better services as online shoppers, as a result of getting your voices heard. You may also get a better understanding of how media research is conducted through the participation of this study.

**Compensation**

I am very appreciative of your time and contribution to this study. If you participate in this study and finish the survey, you will get $0.50 cash reward as compensation.

**Questions about the research**

If you have any question or concern regarding the study, you are welcome to contact Liu Yang at (513)-287-0024 (e-mail: lyang@bgsu.edu), or her advisor Professor Louisa Ha at (419) 372-9103 (e-mail: louisah@bgsu.edu). If you have questions about participant rights, you may contact the Human Subjects Review Board at 419-372-7716 or e-mail at hsrb@bgsu.edu.

Please print a copy of this consent form for your records, if you so desire.

I have read and have been informed the above consent form. I certify that I am 18 years old or older and, by clicking yes button to enter the survey, I indicate my willingness to take part in the study voluntarily.

**Yes**
亲爱的网友：

您好！

研究简介
您被邀请参与一份关于消费者网购经验的调查研究。这项研究的目的是了解影响消费者网络信任的因子。这份调查的发起者是博林格林大学媒介与传播学院的博士，阳柳。

调查过程
在此项调查中，您将填写一份网络问卷。这份网络问卷将会问您的网购经验，您如何与网络零售商和其他消费者交流以及您的一些基本信息，例如您的性别，年龄，民族，等。这份调查将会花费您 10 分钟的时间。

参与过程
您必须是年满 18 周岁的成人，才能参与这项调查。您的参与完全是自愿的。您完成这份网络调查意味着您同意参与这项研究。您有权在任何时候退出或者停止填写这份调查。您也可以跳过任何您不想回答的问题。您的退出或者终止不会产生任何不良后果。您参与这份调查不会产生不良风险。您的参与与否不会影响您可能产生的任何与博林格林州立大学的关系。

隐私保护
参与这份调查的风险很小，不会大于您在日常生活中可能遇到的风险。您的个人信息将会被安全保存。报告也不会透露您的信息。可辨认的个人信息不会储存在数据库中，也不会被发表。您的个人信息与您的问卷回答并无必然联系。所有调查信息将会被安全储存在研究者阳柳的个人电脑的数据库中，并有密码保护该数据。只有研究者阳柳才有权阅读和使用该数据。但为了更好的保护您的信息，您应当意识到电脑中可能的监控软件。请在完成问卷后务必清除浏览历史。调查结果将会用于毕业论文和学术研究，也可能会发表在学术论文中。
重要性

您的回答对此项研究非常重要。此项研究的结果将会帮助网络零售商和媒介研究者理解消费者的网购行为和影响其网络信任的因素。因此它将会影响学术研究以及电子商务营销的发展。因为您的声音和意见被听取，您可能获得更好的网购体验。

风险说明

参与这份问卷调查的风险很小，不会大于您在日常生活中遇到的风险。

奖励

完成这份问卷调查，您将获得 RMB 2.5 元现金奖励。

问题

您如果有任何关于此项研究的问题，欢迎与作者阳柳联系。她的电话是 (513)-287-0024。电子邮件地址是 lyang@bgsu.edu。您也可以与她的导师 Louisa Ha 联系。她的电话是 (419) 372-9103。电子邮件地址是 louisah@bgsu.edu。如果您有任何关于参与权的问题，您可以与人类受试者审查委员会联系。该机构的联系电话是 419-372-7716。电子邮件地址是 hsrb@bgsu.edu。

如果您愿意，您可以打印这份知情同意书以作备份。
我已经阅读和告知了以上的知情同意书。我确实已年满 18 周岁。点击提交键，证明我自愿参与这份研究调查。

提交

感谢您的参与！
Online Shopping Behaviors and Customers’ Trust Survey
Q1. Have you shopped online (including purchasing both physical goods and digital media content such as online movies or e-books)?
- Yes
- No

If No Is Selected, Then Skip To End of Survey

Q2. Why do you shop online? (Please check all that apply)
- It is convenient, fast and easy.
- It saves my time
- I get cheap deals and better prices.
- I enjoy the online shopping trip for its own sake, not just for the items I may purchase.
- I can avoid crowds.
- I can buy various products or products all over the world.
- I can search product information and compare products or price.
- I can read customers' product reviews to make a purchase decision
- I can buy certain type of products without the embarrassment such as underwear.

Q3. How many years have you used the Internet? (Please write in numbers)

Q4. How many years have you shopped online? (Please write in numbers)

Q5. How often do you use following media devices to buy products online including both physical goods and digital media content such as online movie or e-book?

<table>
<thead>
<tr>
<th>Media Device</th>
<th>Daily</th>
<th>Several times a week</th>
<th>Several times a month</th>
<th>Several times a year</th>
<th>Less than once a year</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC/laptop/Netbooks</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Smartphones</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Tablets such as iPads</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Portable e-book readers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Smart TV</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Game console</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Q6. How much money do you spend online per year on average? (Please write in numbers)

Q7. When you shop online, what are your concerns? (Please check all that apply)
☐ I may not receive the product and may lose my money
☐ I can't receive the product in time
☐ The product I receive doesn't look like the picture shows
☐ The product I receive does not perform as I expect
☐ The privacy issue or information security
☐ The website is difficult to use
☐ Shipping or returning is inconvenient.
☐ I can't get the refund if I want to return the product
☐ Counterfeit goods
☐ Fake online reviews

Q8. Which is the most **Important** factor that affects your online purchase decision? (Please drag and drop each item to rank the options)

   _____ Product quality
   _____ Cost
   _____ Brand reputation
   _____ Finish purchase in a short time
   _____ My past experiences
   _____ Website usability
   _____ Friends' recommendation or online product reviews

Q9. How often do you shop on Amazon?
☐ Daily
☐ Several times a week
☐ Several times a month
☐ Several times a year
☐ Less than once a year
☐ Never
Q10. What type of products do you usually buy on Amazon? (Please check all that apply)
- Media & books
- Apparel & Accessories
- Electronic Products
- Home & Garden
- Sporting goods
- Health & Beauty
- Food & Groceries
- Luxury goods

Q11. How much money do you spend on Amazon per year overall? (Please write in numbers)

Q12. Do you involve in the following activities when you shop on Amazon? (Please check all that apply)
- I search and read product information on Amazon
- I compare products and alternatives on Amazon
- I have an Amazon account
- I have linked my bank account or credit card to my Amazon's account
- I am an Amazon Prime member
- I post product reviews on Amazon
- I share my shopping experience on Amazon with my friends or families
- I share my shopping experience on Amazon on my social media
- I follow Amazon on social media such as Facebook or Twitter

Q13. Have you read Amazon's customer reviews about a product?
- Yes
- No
Q14. Do you agree following statements about how Amazon's product reviews can help you?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading customer reviews gives enjoyment to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading customer reviews gives fun to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading customer reviews is playful for me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q15 Do you agree following statements about your experience of reading customers' product reviews on Amazon?

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can get information I need from other customers' personal product usage experiences</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Other customers' reviews can answer my questions about products or service</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I have a sense of human contact when I read other customers' reviews</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I have a sense of sociability when I read other customers' reviews</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I have a sense of human warmth when I read other customers' reviews</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Q16 Do you agree the following statements?

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Famous brands on Amazon have more expertise to meet my demands than non-famous brands on Amazon.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Famous brands on Amazon are more honest and trustworthy than non-famous brands on Amazon.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Famous brands on Amazon care about customers more than non-famous brands on Amazon.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Q17 Have you searched or bought products from Third-Party Sellers on Amazon (A seller other than Amazon itself)?

☐ Yes

☐ No

Q18 Do you agree the following statements?

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third-party sellers on Amazon have the expertise to meet my demands.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Third-party sellers on Amazon are honest and trustworthy.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Third-party sellers on Amazon care about customers.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Q19 When you search or buy products from third-party sellers on Amazon, do you notice that some products are fulfilled by Amazon and some are not fulfilled by Amazon?

☐ Yes, I notice the difference.

☐ No, I never notice the difference.
Q20 Do you agree the following statements?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third-party sellers fulfilled by Amazon have more expertise to meet my demands than non-fulfilled Third-party sellers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third-party sellers fulfilled by Amazon are more honest and trustworthy than non-fulfilled Third-party sellers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third-party sellers fulfilled by Amazon care about customers more than non-fulfilled Third-party sellers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q21 Do you agree following statements?

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I rely on myself most of the time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I rarely rely on others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am unique and different from others in many respects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent and children must stay together as much as possible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is my duty to take care of my family, even when I need to sacrifice what I want</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q22 Do you agree following statements?

<table>
<thead>
<tr>
<th>People in higher positions should not ask the opinions of people in lower positions too frequently</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>People in higher positions should avoid social interaction with people in lower positions</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>People in lower positions should not disagree with decisions by people in higher positions</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q23 Do you agree following statements?

<table>
<thead>
<tr>
<th>People in the U.S. have the same opportunity to be educated</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>People’s income in the U.S. corresponds to their effort</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>People in the U.S. have the same opportunities to seek a job</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>People in the U.S. have the same opportunity to access medical care service</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>People in the U.S. have the same freedom to express their opinions</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q24 What is your gender?  Male  Female
Q25 Are you the only child in your family?
- Yes
- No

Q26 What is your age? (Please write in numbers)

Q27 What is your race?
- White/Caucasian
- African American
- Hispanic
- Asian
- Native American
- Native Hawaiian and Other Pacific Islander
- Other

Q28 What is the highest level of education you have completed?
- Grade 8 or less
- Grade 9-11
- High School graduate or equivalent
- 1 to 3 years of college or technical school
- 4-year College Degree
- Attended or completed graduate school

Q29 What is your household income per year?
- Under US$30,000
- $30,001~$60,000
- $60,001~$90,000
- $90,001~$150,000
- $150,001~$300,000
- Over $300,000
Q30. What is your current occupation?

- Administrative/Clerical
- Cashier/Customer service
- Engineer/technician
- Factory worker
- Homemaker
- Managerial/Business/Sales
- Professional
- Retiree
- Student
- Unemployed
- Other (please specify) ____________________

Thanks for your participation!
消费者网购行为与信任的关系
调查问卷
网上购物体验调查

Q1. 您平时上网购物吗？(包括购买实物产品如衣服电脑以及虚拟产品如电子书，电影，等)? (单选)
☑ 是的
☑ 没有 (跳到问卷结尾，结束回答)

Q2. 您上网购物的原因是？（多选）
☑ 网购方便，容易。
☑ 网购节省了我的时间。
☑ 价格便宜。
☑ 我可以搜索产品信息，比较价格。
☑ 我可以阅读产品评价，帮助购买决策。
☑ 我可以买到各种商品和来自世界各地的产品。
☑ 我网购纯粹因为我喜欢购物。
☑ 我可以避开拥挤的人群。
☑ 购买某些类型的产品如内衣时，我可以避免尴尬。

Q3. 至今为止，您使用互联网多少年了？（请填写阿拉伯数字）

Q4. 至今为止，您至今在网上购物多少年了？（请填写阿拉伯数字）

---------------------------------------------------
Q5. 您使用以下电子设备网购的频率是？（包括购买实物产品和多媒体虚拟产品，如在线电影或电子书）

<table>
<thead>
<tr>
<th></th>
<th>每天</th>
<th>一周几次</th>
<th>一个月几次</th>
<th>一年多次</th>
<th>少于一年一次</th>
<th>从来没有</th>
</tr>
</thead>
<tbody>
<tr>
<td>台式电脑/笔记本电脑/上网本</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>平板电脑如 ipad</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>智能手机</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>便携电子书阅读器</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>智能电视</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>游戏机</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q6. 您每年在网购上花多少钱？（填空题）（包括购买实物产品和多媒体虚拟产品，如在线电影或电子书）

Q7. 当您在网上购物时，您担心以下哪些问题（多选）

- 由于收不到产品而损失我的钱。
- 收到的产品与图片或者我期望的不符合
- 收到错误或者破损的产品
- 买到假货
- 运货时间长，无法及时收到网购的商品
- 购物网站很难用
- 退换货不方便或退货无法得到退款
- 暴露个人信息或隐私
- 商品评价是假的
Q8. 什么是影响您在网购时做决定的最重要的因素？（单选）

- 产品质量
- 价格
- 品牌美誉度
- 款式和设计
- 我过去网购的经验
- 其他网购消费者的评价
- 购物网站是否容易使用
- 朋友或家人的建议或顾客推荐或意见
- 以最短的时间完成购买
- 售前或售后的服务质量

Q9. 您在天猫购物的频率是？（单选）

- 每天
- 每周几次
- 每个月几次
- 一年几次
- 少于一年一次
- 从来没有

Q10. 您通常会买在天猫什么类型的产品？（多选）

- 图书音像或者娱乐产品（如书籍，音乐或电影产品）
- 服饰鞋帽或饰品
- 数码电子产品如手机，电脑等
- 软件，游戏，手机应用
- 家居与园艺产品
- 户外运动用品
- 医药保健，个人护理和化妆品
- 汽车及其配件
- 食品和杂货
- 奢侈品
Q11. 您平均每年在天猫花费多少钱？（请填写阿拉伯数字）

Q12. 当您在天猫搜索产品或者购物时，您有以下哪些行为？（多选）

- 搜索和阅读产品信息
- 比较同类产品
- 我有支付宝或余额宝账号
- 我的支付宝绑定了我的信用卡或银行卡
- 给卖家写产品评论
- 与朋友或家人或在社交媒体如微博微信上分享我的天猫购物体验
- 我在社交媒体如微博微信上关注了天猫或某些天猫商家
- 我在社交媒体如新浪微博，腾讯朋友圈上获得天猫打折信息
- 我在电子邮件中获得天猫打折信息

Q13. 您是否曾经在天猫上阅读过其他顾客关于产品的评价？（单选）

- 是的
- 没有
Q14. 你是否同意以下关于天猫的产品评价的观点？

<table>
<thead>
<tr>
<th>观点</th>
<th>非常同意</th>
<th>同意</th>
<th>既不同意也不反对</th>
<th>不同意</th>
<th>非常不同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>阅读产品评价很有趣</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>我享受阅读产品评价的过程</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>阅读产品评价很好玩</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q15. 当您在阅读天猫的产品评论时，您同意以下观点吗？

<table>
<thead>
<tr>
<th>观点</th>
<th>非常同意 (1)</th>
<th>同意 (2)</th>
<th>既不同意也不反对 (3)</th>
<th>不同意 (4)</th>
<th>强烈反对 (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>其他顾客的产品评价能回答我关于产品的问题</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>我可以了解其他顾客使用产品的个人经验</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>当我阅读产品评价时，我有一种与人接触的感觉</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>当我阅读产品评价时，我有一种与人在交流的感觉</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>当我阅读产品评价时，我感到其他消费者的热情</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>当我阅读产品评价时，我感到其他消费者的热情</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q16. 您同意以下关于天猫上商家的结论吗？

<table>
<thead>
<tr>
<th></th>
<th>非常同意</th>
<th>同意</th>
<th>既不同意也不反对</th>
<th>不同意</th>
<th>非常不同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>天猫上的商家是诚实可信的。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>天猫上的商家关心消费者的利益。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>天猫上商家买的商品质量有保障</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q17. 您同意以下关于天猫上著名品牌和非著名品牌的结论吗？

<table>
<thead>
<tr>
<th></th>
<th>非常同意</th>
<th>同意</th>
<th>既不同意也不反对</th>
<th>不同意</th>
<th>非常不同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>天猫上著名品牌比非著名品牌更诚实可信。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>天猫上著名品牌的产品比非著名品牌的品质更好。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>天猫上著名品牌更关心消费者的利益</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q18. 您在天猫上购物时，注意到了有的产品具有“七天无理由退换”这个标志了吗？（单选）
- ○ 是的，我注意到了。
- ○ 没有，我从未注意过。
Q19 您同意以下关于天猫上有"七天无理由退换货"保障和没有该保障的商家的结论吗？（接 q25）

<table>
<thead>
<tr>
<th></th>
<th>非常同意</th>
<th>同意</th>
<th>既不同意也不反对</th>
<th>不同意</th>
<th>非常不同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>具有“七天无理由退换货”保障的商家比没有“七天无理由退换货”保障的商家更诚实可信。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>具有“七天无理由退换货”保障的商家比没有“七天无理由退换货”保障的商家更关心消费者的利益。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>具有“七天无理由退换货”保障的商家的产品比没有“七天无理由退换货”保障商家的产品质量好。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Q20. 您同意以下陈述吗？

<table>
<thead>
<tr>
<th></th>
<th>非常同意</th>
<th>同意</th>
<th>既不同意也不反对</th>
<th>不同意</th>
<th>非常不同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>大部分情况我靠自己，我很少依赖他人。在许多方面我是独特的，与众不同的</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>家长和孩子要尽可能呆在一起</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>照顾我的家人是我的责任，即使为了家人牺牲我的个人利益我也愿意</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q21. 您同意以下陈述吗？

<table>
<thead>
<tr>
<th></th>
<th>非常同意</th>
<th>同意</th>
<th>既不同意也不反对</th>
<th>不同意</th>
<th>非常不同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>级别高的人不应该太频繁地问级别低的人的意见</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>级别高的人应该避免与级别低的人交往和接触</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>级别低的人不应该与级别高的人产生不同的意见</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Q22. 您同意以下观点吗？

<table>
<thead>
<tr>
<th>观点</th>
<th>非常同意</th>
<th>同意</th>
<th>既不同意也不反对</th>
<th>不同意</th>
<th>非常不同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>在我国，人们都有同样的受教育的机会。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>在我国，人们的收入与他们的努力成正比</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>在我国，人们都有同样的就业机会。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>在我国，人们都有同样的机会看病或接受医疗服务。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>在我国，人们都有同样的自由表达自己的意见。</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q23. 您的性别是？（单选）

○ 男
○ 女

Q24. 您的年龄是？（请填写数字）


Q25. 您的民族是？（单选）

○ 汉族
○ 少数民族（请注明）
26. 您每年的平均税前家庭收入是？（单选）

- 3 万以下
- 3 万至 5 万
- 5 万至 10 万
- 10 万至 30 万
- 30 万至 50 万
- 50 万以上

Q27. 您的最高学历是？

<table>
<thead>
<tr>
<th>学历</th>
</tr>
</thead>
<tbody>
<tr>
<td>小学及以下</td>
</tr>
<tr>
<td>初中</td>
</tr>
<tr>
<td>高中，职高，中专或技校</td>
</tr>
<tr>
<td>大专</td>
</tr>
<tr>
<td>本科</td>
</tr>
<tr>
<td>研究生</td>
</tr>
<tr>
<td>博士及以上</td>
</tr>
</tbody>
</table>

Q28. 您的职业是？

<table>
<thead>
<tr>
<th>职业</th>
</tr>
</thead>
<tbody>
<tr>
<td>专业技术，学术或艺术从业人员</td>
</tr>
<tr>
<td>政府机关和事业单位人员</td>
</tr>
<tr>
<td>企业高中层管理人员/私营企业主</td>
</tr>
<tr>
<td>个体经营者</td>
</tr>
<tr>
<td>商业或销售人员</td>
</tr>
<tr>
<td>公司职员、服务业人员、行政人员</td>
</tr>
<tr>
<td>工厂工人</td>
</tr>
<tr>
<td>体力劳动者</td>
</tr>
<tr>
<td>农业劳动者</td>
</tr>
<tr>
<td>家庭主妇/夫</td>
</tr>
<tr>
<td>学生</td>
</tr>
<tr>
<td>无业或待业</td>
</tr>
</tbody>
</table>

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